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PITT
COMMUNITY COLLEGE

GREENVILLE, NORTH CAROLINA



GENERAL CATALOG 1990-1992

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PITT COMMUNITY COLLEGE

Greenville, North Carolina

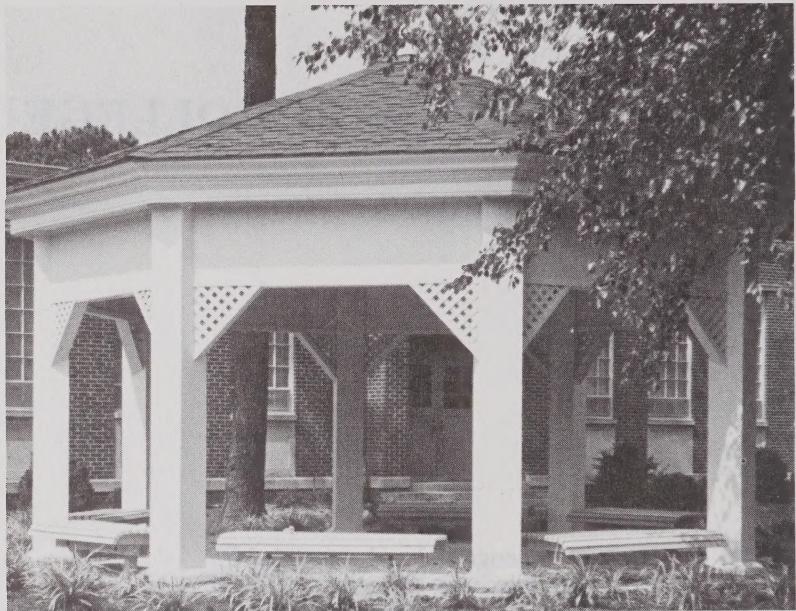
Recognized and Approved By
North Carolina State Board of Community Colleges
North Carolina State Board of Nursing
Radiologic Technology Joint Review Committee
of the American Medical Association

Pitt Community College is accredited by the Commission
on Colleges of the Southern Association of Colleges and
Schools to award the Associate Degree,
Diplomas, and Certificates.

CATALOG OF COURSES DAY AND EVENING PROGRAMS

Volume XVI
1990-91

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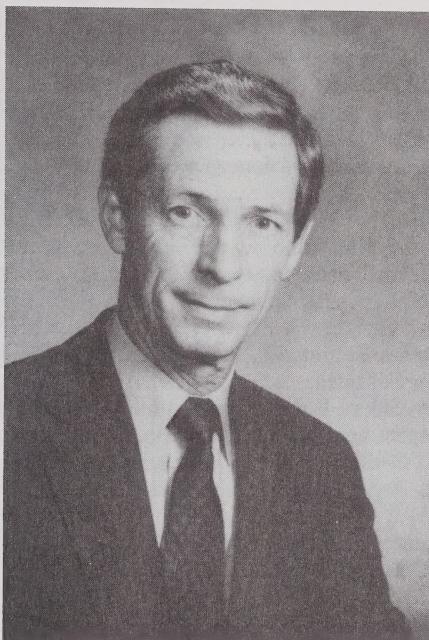


Pitt Community College publishes this catalog to provide students and other interested persons with information about the College and its programs. The information provided is up to date as of March 30, 1990. For information about changes after March 30, 1990 contact the Office of Admissions and Records or the appropriate department chairman.

The provisions of the catalog are not to be regarded as an irrevocable contract between students and Pitt Community College. The College reserves the right to change any provisions, requirements, or schedules at any time or to add or withdraw courses or program offerings. Every effort will be made to minimize the inconvenience such changes create for students.

Students having questions not answered in this publication may secure additional information from the Dean of Students, Pitt Community College, P. O. Drawer 7007, Greenville, North Carolina 27835-7007; telephone (919) 355-4211.

It is the policy of Pitt Community College not to discriminate against any person on the basis of race, color, handicap, sex, religion, age, or national origin in the recruitment and admission of students; the recruitment, employment, training, and promotion of faculty and staff; and the operation of any of its programs and activities, as specified by federal laws and regulations. Pitt Community College is an equal opportunity/affirmative action institution.



PRESIDENT'S MESSAGE

Welcome to Pitt Community College. We are delighted that you are interested in our College and look forward to serving you. Our wide range of programs, courses, and support services will assist you in achieving success in your chosen career.

The success of our graduates has been a guide for the continued growth of our College. The need for a better educated workforce has increased in Pitt County, and Pitt Community College has continuously assisted by offering courses and curricula necessary to meet the demands of local and regional employers. Whether you wish to complete high school, earn a college degree, improve your job skills, or learn one of the many skills taught in our adult and continuing education programs, I am confident that you will find a service or a program to meet your needs at Pitt Community College.

This catalog provides you with a detailed description of the College's requirements, procedures, and offerings. What it cannot convey, however, is the satisfaction that comes from attending Pitt Community College. Here the staff and faculty have a genuine concern for the welfare and future success of its students. The opportunity is here for you. I urge you to take full advantage of the College's total resources in the development of your skills in your chosen field.

Dr. Charles E. Russell
President

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PITT COMMUNITY COLLEGE
Academic Calendar - 1990-91

FALL QUARTER

Registration: Day and Evening	Tuesday September 4 & Wednesday 5
Evening Classes Begin	Wednesday September 5
Day Classes Begin	Thursday September 6
Last Day and Evening to Drop/Add	Monday September 10
Preregistration and Prepayment for Winter Quarter: Day Classes.....	Wednesday October 31 - Friday November 2
Preregistration and Prepayment for Winter Quarter: Evening Classes	Wednesday October 31 & Thursday November 1
Last Day to Officially Withdraw	Wednesday October 31
Last Day to Remove Incompletes	Wednesday October 31
Last Evening of Classes	Tuesday November 20
Last Day of Classes.....	Wednesday November 21

WINTER QUARTER

Registration: Day and Evening	Thursday November 29
Day Classes Begin	Friday November 30
Evening Classes Begin	Monday December 3
Last Day and Evening to Drop/Add	Tuesday December 4
First Day of Christmas Holidays	Monday December 24
Classes Begin After Christmas Holidays	Wednesday January 2
Martin Luther King Birthday.....	Friday January 18
Preregistration and Prepayment for Spring Quarter: Day Classes.....	Wednesday January 30 - Friday February 1
Preregistration and Prepayment for Spring Quarter: Evening Classes	Wednesday January 30 & Thursday January 31
Last Day to Officially Withdraw	Tuesday February 5
Last day to Remove Incompletes	Tuesday February 5
Last Day and Evening of Classes	Tuesday February 26

SPRING QUARTER

Registration Day and Evening	Monday March 4
Day and Evening Classes Begin.....	Tuesday March 5
Last Day and Evening to Drop/Add	Thursday March 7
Easter Holiday	Friday March 29
Easter Holiday	Monday April 1

Academic Calendar 1990-91 (Cont'd)

Preregistration and Prepayment for Summer

Quarter: Day Classes..... Wednesday May 1
- Friday 3

Preregistration and Prepayment for Summer

Quarter: Evening Classes Wednesday May 1
& Thursday 2

Last Day to Officially Withdraw Wednesday May 1

Last Day to Remove Incompletes Wednesday May 1

*Last Evening of Classes Tuesday May 21

Last Day of Classes..... Wednesday May 22

Graduation Wednesday May 22

*Note - Monday evening classes and Monday - Wednesday evening
classes meet on Tuesday, May 21.

SUMMER QUARTER

Registration Summer Quarter and

First Summer Session: Day and Evening Tuesday May 28
Day and Evening Classes Begin..... Wednesday May 29
Last Day and Evening to Drop/Add Thursday May 30
Summer Break..... Monday July 1
- Friday 5

First Summer Session Ends..... Friday July 12

Preregistration and Prepayment for Fall

Quarter: Day Classes..... Wednesday July 31
- Friday August 2

Preregistration and Prepayment for Fall

Quarter: Evening Classes Wednesday July 31
& Thursday August 1

Last Day to Officially Withdraw Tuesday July 30

Last Day to Remove Incompletes Tuesday July 30

Last Day and Evening of Classes Tuesday August 20

Graduation Tuesday August 20

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Vice Chairman

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(ex-officio)
SGA President
(ex-officio)

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Wilton Duke
D. D. Garrett
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Eugene James

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Linwood Mercer
Farney Moore

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Frances D. ElksSwitchboard Operator
Mary K. Langston.....Administrative Assistant to the President
James H. Young, Ed.D.....Director of Institutional Development

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Sandra L. Jones.....Secretary to Executive Vice President
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Laura Lynne GarrisSecretary to Assistant Dean for Evening Programs
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Lanny Joe Brittain, CertificateIndustrial Maintenance/
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Christopher J. Grill, B.A., CRTT, RRT.....	Respiratory Care
*James A. Harris, Diploma	Masonry
D. Gene Hemby, B.S.	Machinist
Marsha P. Hemby, B.S.	Medical Assisting
Debra Hendren, B.S.N.	Hospital Ward Clerk
*William M. Hill, B.S.I.S.	Carpentry and Cabinetmaking
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Sherry J. Horton, M.A.	Arts and Sciences
Lloyd F. Huggins, A.B.	Basic Law Enforcement Training
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*Judith G. Kasperek, M.A.T.	Arts and Sciences
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*Edwin F. Martin, Jr., M.A.Ed.	Architectural Drafting
Dwight B. McGowan, Diploma	Automotive Mechanics
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Sue J. Mehlich, M.A.	Arts and Sciences
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Darlene Smith-Worthington, M.A.	Arts and Sciences
*Hugh P. Stanley, M.A.Ed.	Industrial Management Personnel Management
*R. Bruce Steinbach, A.A.S., CRTT, RRT	Respiratory Care
Carol Stevens, M.S., R.N.	Nursing Education
Charissa F. Stroud, M.S.N.	Nursing Education
**Frank M. Sutton, M.B.A., C.P.A.	Business and Secretarial Education
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*Jarvis E. Tripp, Diploma	Electrical Installation and Maintenance/ Electromechanical
Thelma K. Turner, B.S.N., R.N.	Nursing Education
Carolyn C. Tyndall, M.A.Ed.	Business and Secretarial Education
AJ Tyson, M.A.Ed.	Instructor, Human Resources Development
Elaine F. Umphlett, M.A.	Business and Secretarial Education
Georgette R. Van, M.B.A.	Business and Secretarial Education
Leonard C. Van Staalduin, B.E.D.A.	Architectural Drafting
Charles P. White, Ph.D.	Arts and Sciences
*Barbara B. Wilson, M.A.Ed.	Business and Secretarial Education
Linwood E. Woodard, M.A.	Arts and Sciences
Mitzi C. Woodside, M.A.	Arts and Sciences
*Travis M. Wooten, Certificate	Manufacturing Engineering

*Jasper Wynne, B.S.....Greenhouse and Grounds Maintenance

**Division Director

*Department Chairman

Preschool Laboratory Staff

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Teresa S. Aman, A.A.S.	Teacher
Barbara B. Carson	Secretary
Deborah Lamb, A.A.S.	Teacher
Mary Jane LaNeave, M.S.H.E.	Teacher
Anna A. Modlin, A.A.S.	Teacher
Betty M. Newell, A.A.S.	Teacher
Toni G. Strayhorn, A.A.S.	Teacher
Ruby L. Taylor	Cook

LEARNING RESOURCES CENTER

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Cecilia M. Boklage, M.L.S.	Librarian
Lisa C. Driver, M.L.S.	Librarian and Coordinator of Library Services
Mary K. Godley, A.A.S.	LRC Technical Assistant for Library Services
John L. Griffin, B.F.A.	Instructional Designer and Media Production Specialist
Rita B. Harris, A.A.S.	LRC Acquisitionist/Bookkeeper/ Secretary
Lottie N. Joyner	LRC Technical Assistant for Library Services
Linda C. Leighty, M.A., M.S.	Librarian and Director of Audiovisual and Media Production Services
James P. Leo.....	Audiovisual/Computer Equipment Technician
Jane A. Smith, B.S.....	Librarian
Jane C. Tripp, B.S.	LRC Graphics/Media Technician

STUDENT SERVICES

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Norma S. Barrett, M.S.	Director of Counseling
Marietta Cannon, A.A.S.	Data Processing Technician
Charles Coburn, A.A.S.....	Athletic Director
Ray Congleton, M.A. Ed.	Recruiter/Counselor

Sylvia Corey, A.A.S.	.....	Director of Admissions and Records
James O. Deans, M.A.Ed.	.....	Counselor
Yvonne C. George, M.S.	.....	Counselor
Patricia Jones	.....	Secretary, Admissions and Records
Cassandra King	.....	Secretary, Admissions and Records
Jean M. King	.....	Secretary, Dean of Students
Kathy O. Kinlaw, B.S.	.....	Assistant Registrar
Rudy Lloyd, A.A.S.	.....	Coordinator of Scholarships and Veterans Affairs
Dollie M. Prayer, A.A.S.	.....	Secretary, Counselor
Leslie Rogers, M.A.Ed.	.....	Placement Officer
Hal Smith, M.A.Ed.	.....	Recruiter/Counselor
Terri Stanley	.....	Secretary, Career Planning and Placement
Nancy B. Taylor	.....	Financial Aid Officer
Donna A. Wilson, A.A.S.	Secretary, Financial Aid Officer

OFFICE OF VICE PRESIDENT FOR ADMINISTRATIVE SERVICES

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Vickie Beddard	Graphic Arts Technician
Hazel Clift	Clerk, College Store
Rob Conway	.....	Mail/Shipping/Receiving Clerk
Susan Counterman, B.S.	.....	Computer Programmer
Rachel B. Davis	.....	Personnel Assistant
Renee B. Daw, A.A.S.	.....	Accounts Receivable
Byron Dickens, B.S.	.....	College Store Manager
Alan Edwards, A.A.S.	.....	Chief of Security
Jenny B. Edwards, A.A.S.	.....	Cashier/Travel
Jennifer Ann Garris, A.A.S.	.....	Computer Systems Operator
Lorna Grooten	.....	Accounting Clerk
Connie S. Harrell, B.S., C.B.M.I.	.....	Comptroller
Judy H. Harris	.....	Bookkeeper/Secretary, College Store
Vickie Joyner, B.S.	.....	Clerk, Purchasing
Marvin B. Lewis	.....	Equipment and Inventory Control
William D. Lewis, M.A.	.....	Computer Systems Administrator
Debra P. McGowan, M.A.	.....	Director of Personnel
Janice B. McGowan, B.S.	.....	Payroll
Alberta Moye	.....	Secretary, Vice President of Administrative Services
Jewel L. Smith, A.A.S.	.....	Batching/Construction Clerk
Paul Suggs, Diploma	.....	Graphic Arts Technician
Helen J. Vandiford	.....	Accounts Payable

Maintenance Department

William Dinkins, A.A.S., Electrical License.....	Superintendent of Buildings and Grounds
Larry Barnhill	Housekeeping
Robert Beddard.....	Electrical Technician
James Best.....	Housekeeping
Keith Bielby	Maintenance
Sarah Blount.....	Housekeeping
Donald Bridgers	Housekeeping
Owen Burney, Electrical/HVAC Diploma.....	Carpenter, Plumber Technician
David Carmon.....	Housekeeping
Paul Carmon.....	Housekeeping
Levarn Carr	Maintenance Grounds
Lisa Carroll.....	Secretary
Mildred Clemons	Housekeeping
Albert Crandell.....	Housekeeping
Ashley Dail, HVAC Diploma	Maintenance Technician
Aron Harper.....	Housekeeping
Frederick James, HVAC License	HVAC Mechanic
Ida King	Housekeeping
Johnny Moye	Housekeeping
Evelyn Parker.....	Housekeeping
Ray Field Payton	Housekeeping
Thomas Reeves.....	Maintenance Grounds
Horace Stewart.....	Maintenance Electrical
George Ward.....	Housekeeping



GENERAL INFORMATION

HISTORY OF THE COLLEGE

In March, 1961, Pitt Community College was chartered and designated by the State Board of Education as an industrial education center. The College began its operation as Pitt Industrial Education Center during the same year. Dr. Lloyd Spaulding served as the director of the center.

The programs developed and expanded, and in 1964, the school was designated a technical institute by the State Board of Education. The name was changed in July, 1964, to Pitt Technical Institute, and it opened in its new facility, the Vernon E. White Building in September, 1964, with nine curricula and 96 students.

Dr. William E. Fulford served as the institution's president from 1964-84. During those twenty years the institution experienced many changes and much growth.

In 1970, a second building, the Robert Lee Humber Building, was completed, providing an additional 31,458 square feet to serve the citizens of Pitt County.

In 1975, an addition was made to the White Building, adding a new student lounge with various recreational facilities. This addition also provided facilities for the Business Computer Programming curriculum.

The summer of 1979 brought about two important changes to Pitt Technical Institute. The Kay V. Whichard Building, a 26,000 square foot classroom/shop facility, was completed on campus. Also, the North Carolina General Assembly enacted a bill that changed Pitt

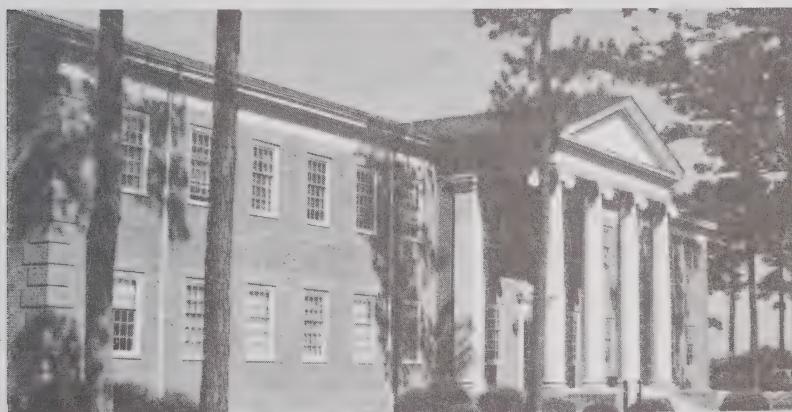
Technical Institute to Pitt Community College. The change brought about the addition of the two-year college transfer programs.

Dr. Charles E. Russell was named President of Pitt Community College in 1984.

A new Learning Resources Center (LRC), the Clifton W. Everett Building, provides approximately 31,200 square feet of space for library, audiovisual, and media production services and for individualized Learning Center services. The new facility was completed in the Spring of 1987.

A new vocational education classroom and lab/shop building, the A.B. Whitley Building, was opened in February, 1990. The 32,300 square feet facility provides space for the following programs: Diesel Mechanics/Agricultural Servicing, Machinist, Electronic Servicing, Electronic Engineering Technology, Architectural Drafting Technology, and Manufacturing Engineering Technology.

Today, Pitt Community College offers twenty-five technical programs, twelve vocational programs, three certificate programs, and four college transfer programs.



LOCATION

The College is located on Highway 11, South, between Greenville and Winterville.

MISSION STATEMENT

Established by and for the people of Pitt County, Pitt Community College is dedicated to meeting the educational needs of the local citizenry by providing a comprehensive range of occupational, career, college level, and personal growth programs.

The institution is committed to the maximum development of the innate potential of its students in order to enhance initial employment skills, occupational advancement, discovery of new and emerging technology, pursuit of fundamental knowledge, and commitment to lifelong learning.

In pursuit of these ends, Pitt Community College seeks to provide relevant and high quality instruction, a caring and knowledgeable faculty, a variety of personal and academic support services, and a continuing responsiveness to the expressed needs and interests of business, industry, and the community at large.

Its doors shall be open to all who can benefit regardless of income; race; sex; cultural, economic, or occupational station; or previous educational preparation.

The essence of the College's efforts shall be to contribute, in cooperation with other local educational systems and institutions, to the quality of life, the growth of knowledge, the economic development, and the building of a stronger future for the community it serves.

AREAS OF STUDY AT PITT COMMUNITY COLLEGE

ASSOCIATE IN APPLIED SCIENCE DEGREE (TWO YEAR PROGRAMS)

Accounting
Administrative Office Technology
Banking and Finance ***
Business Administration
Business Computer Programming
Commercial Art and Graphic Design
Criminal Justice: Corrections
Criminal Justice: Law Enforcement
Early Childhood Associate
Electronics Engineering Technology
Human Services Technology
Industrial Maintenance Technology**
Industrial Management Technology**
Manufacturing Engineering Technology
Marketing and Retailing
Medical Assisting*
Medical Office Technology
Medical Sonography*
Nursing Education Options*
Paralegal Technology
Personnel Management Technology**
Radiologic Technology
Respiratory Care Technology*

*Satisfactory admissions test results, interview, high school record, and physical examination are some of the requirements for enrollment.

***Evening programs only.*

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****Evening programs for employees of banking institutions only.*

DIPLOMA (One-year Programs)

Air Conditioning, Heating, and Refrigeration
Automotive Mechanics (Two-year Option)
Carpentry and Cabinetmaking
Cosmetology
Diesel Mechanics/Agricultural Servicing
Electrical Installation and Maintenance
Electronic Servicing (Two-Year Option)
Industrial Maintenance: Electromechanical
Machinist (Two Year Option)
Masonry
Teacher Assistant
Welding

CERTIFICATE

Basic Law Enforcement Training
Hospital Ward Secretary (Three-Month Program)
Nursing Assistant (Three-Month Program)
Surveying (Technical Specialty)

ASSOCIATE IN ARTS DEGREE **(Two-year College Transfer Programs)**

Pre-Business Administration
Pre-Education (Elementary)
Pre-Education (Secondary)
Pre-Liberal Arts

NON-DEGREE CURRICULUM CREDIT

Students may enroll in available courses from different curricula for possible transfer or self-improvement.

ADMISSIONS

Pitt Community College operates under the open-door admissions policy established by the North Carolina General Assembly. All technical institutes and community colleges maintain an open-door admissions policy for all applicants who are high school graduates or high school leavers 18 years of age or older. The College has the right to selectively place these applicants.

General Admissions

The basic requirements for curricular programs (Allied Health Admissions excepted) follow:

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1. The College requires high school graduation or the high school equivalency diploma for all technical, college transfer, and certificate programs. For vocational programs, the College requires student to have at least eight units of high school work.
2. Each applicant must submit a completed Application for Admission.
3. All students take placement tests with the exception of those transfer students who have successfully completed appropriate units in mathematics and English.
4. Applicants for Electronics Engineering Technology and Architectural Drafting Technology should have completed one unit of algebra and one unit of geometry.
5. Each applicant should make an appointment with an admissions counselor for a personal interview prior to enrollment in the College. The counseling session is designed to acquaint the student with the College and to help the student make a wise choice in program selection.

Allied Health Education Admissions

Allied Health programs have additional entrance requirements including a preadmission test. Guidelines for admission into the following programs may be obtained from an admissions counselor:

Nursing Education Options
Radiologic Technology
Respiratory Care Technology
Hospital Ward Secretary
Medical Assisting
Medical Sonography
Nursing Assistant

The Allied Health Admissions Committee will review each completed application and consider criteria including admissions test scores, past academic achievement, references and other factors deemed appropriate by the committee.

Transfer Admissions

Pitt Community College will accept students from other post-secondary institutions provided applicants

1. Submit formal applications, and
2. Have official high school transcript and official transcripts from each post-secondary institution attended mailed to the Office of Admissions and Records.

The dean of students may refuse admission to transfer students not in good standing at previously attended post-secondary institutions.

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Readmission of Curricular Students

Students re-entering after one or more quarters out of school, with the exception of summer quarter, will follow normal admission procedures. Students out of school as a result of disciplinary action must appear before the dean of students and petition for readmission to the College.

Provisional Admissions

A student applying too late to complete pre-entrance requirements may be admitted as a provisional student. In such cases, all requirements must be completed within the first quarter of

attendance, including mailing of official transcripts (high school and post-secondary) directly to the Office of Admissions and Records.

Students not completing admission requirements by the end of the quarter will be reclassified as Non Degree Credit. This will preclude their receiving financial aid and/or Veterans Administration (VA) benefits.

High School Admissions (Dual Enrollment)

The College admits selected high school students to appropriate courses as space permits under the following conditions:

1. The student is 16 years old or older;
2. Admission is approved by the Board of Trustees of the College and the appropriate local board of education upon recommendation by the College President and the applicable school unit superintendent; and
3. The student is taking at least three courses at the high school and is making appropriate progress toward graduation as determined by the school principal.

Individual student programs are jointly approved by the principal of the secondary school and the admissions office of the College.

High school students do not pay tuition and fees.

International Student Admissions

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Pitt Community College has been approved by the U. S. Immigration and Naturalization Service to enroll international students from three categories: permanent residents with the Alien Registration ("green card"), refugees, or student visa holders ("F-1" Student Visa). International students present in the United States on a student visa ("F-1") are considered nonresidents for the purpose of tuition payments. Length of stay, payment of taxes, or ownership of property, in themselves, do not qualify international students for the status of legal residence or domicile. For further information concerning international students' admissions, contact the Office of the Dean of Students.

TUITION, FEES AND OTHER EXPENSES

Financial support from local, state, and federal sources allows each student an educational opportunity at minimum cost. Tuition is set by the North Carolina State Board of Community Colleges and is subject to change without notice. Textbooks, fees,

and supplies are additional expenses which vary according to the program of study. The payment of all fees is required at the time of registration. Any student who does not pay fees the same day of registration will have his/her schedule purged from all classes. Students may not attend class until tuition is paid.

Tuition

Full-Time Students

All North Carolina residents enrolled for twelve (12) or more curricular credit hours are charged a maximum tuition of \$90.00 per quarter.

Part-Time Students

The tuition charge for North Carolina resident curricular students is \$7.50 times the number of credit hours for which the student is enrolled. Example: 9 credit hours \times \$7.50 equals \$67.50.

Senior Citizens

North Carolina residents 65 years of age and older shall be exempted from the payment of curricular tuition and extension registration fees.

Audit Students

Audit students must pay the same tuition rates as other students.

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Out-of-State Students

The entrance requirements and admission procedures for persons who reside outside North Carolina are the same as for residents. Tuition for non-residents is \$840.00 per quarter for full-time enrollment. For part-time students, the fee is \$70.00 per credit hour.

Residence Classification for Tuition Purposes

Under North Carolina law, a person may qualify as a resident for tuition purposes in North Carolina, thereby being eligible for a tuition rate lower than that for nonresidents. Copies of the applicable law and of implementing regulations are available for inspection in the Office of the Dean of Students and also in the Learning Resources Center where they may be examined upon request.

Fees and Other Expenses

Student Activity Fee (Day Students Only)

The student activity fee for each full-time student (12 credit hours or more) is \$6.00 per quarter. Those students registered for nine through eleven credit hours are charged \$4.00 per quarter. Students registered for six through eight credit hours are charged \$2.00 per quarter and students registered for less than six credit hours are charged \$1.00 per quarter.

Accident Insurance Fee

Accident insurance, covering hours in school and transportation to and from school, is available for \$10.00 per year. This insurance is strongly recommended, though not required. Students must submit claims for injury covered under the accident insurance provisions immediately, but in no instance later than 30 days, in order to expect coverage.

The premium for accident insurance is subject to change annually.

Parking Fee

There is a \$4.00 annual charge for parking permits for day students who enroll in fall quarter. Charges for students beginning in a later quarter are prorated.

Textbooks and Supplies

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The cost of textbooks and supplies varies according to the program of study. These items may be purchased from the College Store. The College Store hours are Monday-Thursday, 8:15 a.m. - 8:00 p.m. and Friday, 8:15 a.m. -2:30 p.m. The College Store is closed the day and evening of registration.

Lab Fees for EDP Courses

Lab fees are charged for classes which require special equipment or supplies. These fees are indicated in course listings in the catalog. See course descriptions for actual fee per course.

REFUND POLICY

The College will refund tuition if the student is, in the judgment of the dean of students, compelled to withdraw from school for unavoidable reasons. In such cases, two-thirds of the student's tuition can be refunded if the student withdraws within ten calendar days after the first day of classes as published in the school calendar. Tuition refunds will not be considered for tuitions of \$5.00 or less, unless a course or curriculum fails to materialize due to no fault of the student.

Activity and insurance fees are nonrefundable.

Students desiring a tuition refund are asked to follow the steps listed below:

1. Contact a counselor for approval to officially withdraw from classes (see Official Withdrawal) and obtain the appropriate withdrawal form.
2. Complete the withdrawal form, and
3. Submit the completed withdrawal form to the Office of Admissions and Records.

Students prepaying may receive a full refund of tuition and fees if the official withdrawal is completed by 12:00 noon of the day before registration of the quarter involved.

ACADEMIC REGULATIONS

REGISTRATION

The College year consists of four quarters. Students who are pursuing a curriculum must preregister or register at the beginning of each quarter as they progress toward their educational objectives. Returning students must make satisfactory settlement with the College for all indebtedness prior to registration. All students will register during the prescribed registration period for that quarter (refer to College calendar).

Preregistration and Prepayment

Preregistration and prepayment are held the eighth week of each quarter at a time when students and advisors can review students' academic progress and plan courses for the coming quarter.

This opportunity is an important part of each student's program. Students and their advisors have an opportunity to discuss academic problems on an individual basis and keep abreast of progress.

Those students failing to preregister at the designated time must complete registration on registration day.

Late Registration (Second day of classes through drop/add)

A student may register for class(es) provided

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1. The class is not cancelled or closed,
2. The student convinces the advisor and the dean of students that it was impossible or would have involved extreme hardship to register at the appointed time, and
3. The student pays a late registration fee of \$5.00.

Auditing Courses

Students who wish to audit courses must register for such courses on a special audit registration card. Auditors receive no credit but are expected to adhere to the same attendance policy as credit students. Participation in class discussion and examinations is at the option of the student.

Fees for auditors are the same as for regular students. In the event of limited classroom space, first priority will be given to regular credit students.

**AN AUDIT CANNOT BE CHANGED TO CREDIT NOR
CREDIT TO AUDIT AFTER THE DEADLINE FOR ADDING
COURSES.**

**FINANCIAL AID RECIPIENTS WILL NOT RECEIVE
PAY FOR AUDITING A COURSE.**

DROPPING AND/OR ADDING COURSES

In some instances it is necessary for students to make adjustments in their schedules. To insure that the student receives proper credit, a Drop-Add card should be completed and processed through the registration area and registration form validated by the cashier. The College calendar (published in the Student Handbook and the General Catalog) indicates the last day to drop or add courses. This date is subject to change with proper notification.

**NO COURSE IS OFFICIALLY DROPPED OR ADDED
UNTIL THE REQUIRED PROCEDURE IS COMPLETED.**

This also applies to classes cancelled by the College.

The procedure to be followed is

1. Obtain drop-add form from the Office of Admissions and Records.
2. Complete and have instructor(s) involved initial the form.
3. Have advisor sign the form.
4. Process through the registration area, and
- 5. Have the computer form validated by the cashier.

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WITHDRAWAL FROM CLASSES

Official Withdrawal

During the first eight weeks of a quarter, a student may withdraw from courses without penalty. (See College calendar for applicable date each quarter). NO OFFICIAL WITHDRAWALS WILL BE PERMITTED DURING THE LAST THREE (3) WEEKS OF ANY QUARTER. ANY EXCEPTIONS TO THIS POLICY MUST BE AGREED UPON BY BOTH THE STUDENT'S CURRICULAR DEPARTMENT CHAIR AND THE DEAN OF STUDENTS. Official withdrawals do not count as hours attempted.

Students applying for an official withdrawal during the first eight weeks of a quarter must use the following procedure:

1. Obtain a withdrawal card from a counselor,
2. Complete and have instructor and advisor sign card, and
3. Have card signed by financial aid and/or veteran affairs officer if receiving aid, and
4. Submit completed card to the Office of Admissions and Records.

After the first eight weeks, the student should see his curricular department chair.

Students who officially withdraw from courses will receive no grade for those courses. Only the course(s) for which they registered and the official withdrawal designation will appear on the transcript. For more information, see the counselors or the Office of Admissions and Records.

NOTE: The first session for summer quarter is an exception. Please see academic calendar for specific date for withdrawal.

Unofficial Withdrawal

An unofficial withdrawal from one or more classes is given to students who leave school or stop attending classes without qualifying for or following procedures for official withdrawal status. This includes students dropped for excessive absences (see Attendance) and not reinstated. Unofficial withdrawals count as hours attempted with quality points of "0" in determining the grade point average (GPA). Students who leave school without officially withdrawing will lower their GPA and jeopardize future readmission to the College. For more information see the counselors or the Office of Admissions and Records.

VETERANS NOTE: Any course for which an unofficial withdrawal or an "I" (Incomplete) is received may not be retaken for pay purposes under the Title 38, U. S. Code as amended by Public Law 93-508.

CREDIT BY EXAMINATION

A student who evidences prior proficiency for a course due to previous work or educational experience may apply for credit by examination provided the student is currently enrolled in the College.

Application for approval to take the examination must be made through the academic advisor and approved by the department chairman, using the Permit for Credit by Examination form. If approved, the chairman will make arrangements for the student to take an appropriate test administered by a department instructor.

Exams will be scheduled at the discretion of the department chairman. No student may be permitted to take an exam without presenting the course instructor the properly executed Permit for Credit by Examination.

ALL EXAMINATIONS MUST BE COMPLETED DURING THE FIRST 8 WEEKS OF EACH QUARTER. A STUDENT MAY NOT TAKE AN EXAMINATION FOR CREDIT MORE THAN ONCE FOR ANY ONE COURSE. All grades other than "F" will be recorded on the student's permanent academic record.

Students applying for credit by examination must use the following procedure:

1. Contact the advisor and the department chairman to obtain the Permit for Credit by Examination,
2. Contact and have the Office of Admissions and Records sign the permit,
3. Pay additional nonrefundable tuition, if applicable, and
4. Present permit to instructor who will administer the examination.

The instructor administers and reports the results of the examination to the Office of Admissions and Records within one week of the date of approval of the permit by that office. Credit hours will count toward graduation; these will be computed in grade point average as grades and quality points will be recorded.

CHALLENGE EXAMINATION

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Students enrolled in a course may feel they have become proficient in course subject matter before the scheduled time for completion of the course. In that event, if they can demonstrate prior knowledge of subject matter based on work or educational experience, they may, with the instructor's approval, "challenge" the course by taking the challenge examination during the first eight weeks of the quarter. A student may not challenge a course more than once.

THIS DOES NOT APPLY TO AUDIT STUDENTS (see Audit).

TRANSFER CREDIT

Curricular students are responsible for requesting official transcripts from all previously attended institutions (secondary and post-secondary).

Transcripts for all students enrolled in a curricular program will be evaluated automatically.

Students transferring to Pitt Community College may transfer courses with comparable course content so long as the GPA of all courses being transferred does not fall below a 2.0. EXCEPTION: Students transferring into allied health curricula may not transfer any allied health courses with a grade below "C". Only hours earned are transferable; grades do not transfer.

Former Pitt Community College students who are readmitted into a new curriculum and current PCC students who change their major will have all transcripts evaluated for the new curriculum. Any applicable PCC credit brought forward will reflect hours attempted, hours earned, and corresponding grade point average. Credits brought forward will only include classes required for graduation. "W", "OW," and "NA" will not be brought forward.

A maximum of sixty (60) credit hours may be transferred from institutions outside the North Carolina Community College System toward completing an associate degree or diploma program. Transfer students must complete a minimum of twelve (12) quarter hours of major course work (departmental prefix designation) at Pitt Community College.

Pitt Community College awards credit for appropriate scores on various exams of the College-Level Examination Program (CLEP). The chairman of the department in which the courses are taught determines credit to be awarded. Only hours earned are awarded.

College transfer or technical credit for work experience cannot be allowed except through the organized and supervised cooperative education (CO-OP) program. Academic credit is not allowed for previous work experience outside of the supervision of the College; however, a student may challenge relevant courses by examination. (see CREDIT by Examination)

Work at institutions which are not regionally accredited is evaluated on the basis of the current issue of "Transfer Credit Practices of Designated Educational Institutions" published by the AACRAO or similar publications.

GRADE POINT AVERAGE (GPA)

The grade point average is determined by dividing the total number of quality points by the total number of credit hours of work attempted.

DEAN'S LIST AND HONOR ROLL

All full-time technical, vocational, and college transfer students maintaining a quarterly grade point average between 3.50 and 4.00 will be recognized on the Dean's List. Those maintaining a

quarterly grade point average between 3.00 and 3.49 will be recognized on the Honor Roll.

The Dean's List and Honor Roll are prepared by the Office of Admissions and Records and mailed to all local or area newspapers of the students who qualify for either. Newspaper selected is based upon the student's address of record.

A student with an "Incomplete" grade is not eligible for the Dean's List or Honor Roll in the quarter the "Incomplete" is received.

GRADING SYSTEM

The following grading system is used by Pitt Community College.

<u>Letter</u>	<u>Numerical Equivalent</u>	<u>Quality Points Per Quarter Hour</u>
A	93-100	4
B	85-92	3
C	77-84	2
D	70-76	1
F	Below 70-Failing	0
W	Unofficial Withdrawal	0
*OW	Official Withdrawal	0
*NA	Never Attended	0
*I	Incomplete	0
*AU	Audit	0

*Not included in computing grade point average.

INCOMPLETE

An "Incomplete" is given at the discretion of the instructor when a student demonstrates progress in a course but needs more than one quarter to complete the requirements of the course. To qualify for a grade of "I", a student must be enrolled in a course the last ten days of the quarter. No grades or quality points are awarded because of incomplete work.

The student and instructor (or if unavailable, the department chairman) must fill out a "Requirements to Remove Incomplete" form indicating what the student must do to earn a final grade. This should be signed by both instructor and student with a copy to student's advisor.

REMOVAL OF INCOMPLETE

An "I" must be removed during the next quarter immediately following receipt of the "I". The instructor has two options for requiring the student to remove the "I":

1. Re-enroll in the class or
2. Complete the work during the first eight weeks (see College Calendar).

At the discretion of the instructor, a student may be granted an extension of time under the following provisions:

1. A student must request the extension from the instructor, and
2. A student may be given an extension not to exceed 12 months from the date the "I" is given.

Extensions must be approved by the department chairman and submitted to the Office of Admissions and Records prior to the deadline for removal. Requests for extensions must be received within the first eight weeks of the quarter.

If the student fails to take action as and when prescribed, a grade of "F" will be automatically computed in the student's cumulative grade point average. After that date, no change in grade will be made.

NOTE: If a student is required to re-enroll in a class to remove an incomplete and subsequently officially or unofficially withdraws, or never attends, the "I" will automatically be computed as an "F" in the student's GPA.

A student receiving an "I" in a prerequisite course may not proceed to the sequential course without permission of the instructor or, if absent, the department chairman. No student can graduate with an "I" on his records if the course is required in his curriculum for graduation.

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ACADEMIC PROGRESS

The policy governing academic progress at Pitt Community College is intended to assist the student in successfully completing a chosen program of study within a given period of time. A cumulative grade point average of 2.00 must be earned in the required courses in all curricular programs.

Academic Probation: A student is placed on academic probation when the cumulative grade point average falls below the academic probation level according to the standards of academic progress.

Unsatisfactory Academic Progress: A student who remains on academic probation for the second consecutive quarter is considered making unsatisfactory progress during that quarter.

Satisfactory Academic Progress: A student is considered making satisfactory academic progress until placed on academic probation for the second consecutive quarter; then the student is considered making unsatisfactory academic progress as of the beginning of that quarter. Federal regulations require that a student receiving federal financial aid of any kind be making satisfactory academic progress (see Financial Aid).

Good Academic Standing: A student who is not on academic probation is considered in good academic standing.

Standards of Academic Progress Scale

The following scales establish standards of academic progress to ensure that the student will attain a cumulative grade point average of 2.00 required for graduation. Academic probation is defined as any GPA less than the GPA shown in the column below.

Scale for Diploma and Certificate Programs

Scale for Diploma and Certificate Programs

Hours Toward Degree	GPA
0-15	1.00
16-30	1.35
31-40	1.75
41-and above	2.00

Scale for Associate Degree Programs

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Hours Toward Degree	GPA
0-15	1.00
16-30	1.25
31-45	1.50
46-60	1.75
61-75	1.90
76-and above	1.00

This policy does not apply to students classified as Non-degree (those students not working toward a degree or diploma).

TRANSCRIPTS

Student transcripts are available under the provisions of The Family Educational Rights and Privacy Act of 1974 (P.L. 93-380). Under this Act, written consent from the student is required before

the student records can be released to anyone. Additional information may be obtained from the Office of Admissions and Records. Pitt Community College requires a written request 24 hours prior to release of a transcript.

The first two transcripts are free; subsequent transcripts will cost \$1.00 each.

All financial obligations to the College must be cleared before any transcript will be released.

TRANSFER TO OTHER INSTITUTIONS

Students planning to transfer to four-year colleges or universities are responsible for becoming acquainted with that institution's departmental requirements in the intended major and being guided by those requirements in selecting curricular courses and electives. The College maintains a file of catalogs of many other colleges and universities in the counselor's offices and in the Learning Resources Center. The counselors and the faculty advisors will assist students in selecting an appropriate institution and interpreting its requirements.

Students planning to complete Pitt Community College graduation requirements at another college, please refer to GRADUATION AFTER TERMINATION OF ATTENDANCE.

COURSE LOAD

Full-time curricular students must take a minimum of 12 credit hours. Normally students take 15 to 18 hours. In addition to 12 credit hours, vocational students must take a minimum of 22 contact hours to be classified full-time. Students registering for more than 20 credit hours must have a cumulative grade point average of 2.0 or above or permission of the department chairman.

Students who are employed more than 15 hours per week should reduce their class load accordingly. Beginning students who have full-time employment are urged to limit class loads to 9 to 12 credit hours until they have demonstrated ability to carry a heavier schedule.

ATTENDANCE

Regular and punctual class attendance is expected of all students. Students who anticipate absence should contact their instructors prior to the absence if possible. It is the student's responsibility to make up work missed as soon as possible if the instructor's course guidelines permit.

Instructors will unofficially drop students (see Unofficial Withdrawal) for the following reasons:

- Students will be unofficially dropped when their absences from the class begin to affect the quality of their work and their class grades as determined by the class instructor.
- Any student absent five consecutive class meetings will be unofficially dropped.

For evening students, any student absent two consecutive class meetings must secure permission from the director of evening programs or the dean of students to continue in the class.

Students who have been unofficially dropped and have a valid reason for the absences may be reinstated at the discretion of the instructor. Should the instructor deny reinstatement, the student has recourse to appeal to the dean of students.

Students who are unofficially dropped will receive a grade of "W" which is a punitive grade.

CLASS SCHEDULE

Pitt Community College offers classes between the hours of 8:00 A.M. and 10:00 P.M. five days per week, except on Friday when all classes end at 6:00 P.M.

Noncredit courses for personal, occupational, and community improvement are offered during both day and evening hours.

With careful planning a person can complete most of the work required for a degree or diploma in certain programs by attending evening class.

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CHANGES IN REGULATIONS

Pitt Community College reserves the right to make changes in the regulations, courses, fees, and other matters of policy and procedure as deemed necessary.

CHANGES IN MAJOR COURSE OF STUDY

Students desiring to change major courses of study must receive academic counseling. A request for change of curriculum is initiated with a student counselor, signed by both previous and new advisors, and returned to the Office of Admissions and Records. No registration schedule should be completed by an advisor until this is done.

Students who plan to graduate should not request a change of curriculum until all required courses have been completed in their current curriculum although they may take courses outside the current curriculum prior to its completion. This will enable the Office of Admissions and Records to evaluate all transcripts for credit under the correct catalog of record. Please refer to TRANSFER CREDIT and CATALOG OF RECORD.

STUDENT CLASSIFICATIONS

Freshman	A student who has earned fewer than 54 quarter hours of credit.
Sophomore.....	A student who has earned 54 or more quarter hours of credit
Full-time Technical or College Transfer Student	A student who is registered for twelve or more quarter hours of credit.
Part-time Student	A student who is registered for eleven quarter hours of credit or fewer.
Non-Degree Curriculum.....	A full-time or part-time student not seeking a degree or diploma.
Full-time Vocational Student	A student who is registered for twelve or more credit hours and at least 22 contact hours.

GRADUATION REQUIREMENTS

Upon recommendation of the faculty and the approval of the Board of Trustees, appropriate degrees, diplomas, or certificates will be awarded to students successfully completing the requirements of the curricula in which they were enrolled.

All students must

1. Complete course requirements as prescribed in the catalog of record of the candidate for graduation (see Catalog of Record).
2. Earn a minimum of 2.0 grade point average ("C" average) in the required courses of the curriculum for which they are applying for graduation.

3. Clear all financial obligations to the College.
4. Complete a minimum of 12 quarter hours of major course work (departmental prefix designation) at the College (See Transfer Policy), and
5. Apply for graduation.

Students should meet with their advisors and complete their graduation checklists during preregistration for the candidates' last quarter of attendance. When the checklists have been completed and signed by both students and advisors, the advisors will present them to the Office of Admissions and Records. After validation, the dean of students will be notified of candidates' eligibility for graduation. Those students determined ineligible will be notified by their advisors.

Students are eligible to graduate with honors if their cumulative GPA is 3.50 the quarter prior to graduation in the curriculum from which they are graduating.

Graduation exercises are held in May and August. Presence at graduation is required except when permission for graduation in absentia has been granted by the dean of students. Requests for such permission must be made in writing 30 days prior to graduation.

Students pay for their caps and gowns. The Student Government Association provides degrees, diplomas, and certificates.

GRADUATION AFTER TERMINATION OF ATTENDANCE

All students who wish to receive a degree from Pitt Community College after terminating their attendance with course requirements not met must, in addition to the requirements shown in GRADUATION REQUIREMENTS, receive approval of the courses to be taken at the college they plan to attend. This approval must be in writing from the Office of Admissions and Records. A maximum of twelve (12) credit hours will be approved to be completed within twelve (12) months of termination of attendance.

CATALOG OF RECORD

Students in continuous attendance (summer quarter excepted) may graduate under the provisions of the catalog in effect on their date of entry into their current curriculum, or they have the option of choosing the requirements of a subsequent issue. Students not in continuous attendance must graduate under the provisions of the catalog in effect on their last entry date into the curriculum or subsequent issues. The catalog of record for a student who does a change of major is the catalog in effect at the time the change of major is effective.

REPETITION OF COURSE WORK

Any course repeated will be recorded and no course may be counted more than once in calculating the total number of quarter hours credit toward graduation.

With the consent of their advisors, students may repeat courses in which a "D," "F," or "W" grade was earned on the first attempt and thereafter make request for reevaluation of their official academic record, if a higher grade is obtained. This request must be made within the first eight weeks of a quarter.

No student may invoke this request on a course more than one time. Regardless of how many times a course is repeated, only one prior grade will be forgiven.

When a student receives an "F" in a course not offered during the remainder of the student's residence, an equivalent course may be substituted for purposes of meeting program requirements upon recommendation of the appropriate department chairman and the dean of instruction.

Non-Degree Curriculum students may be required to obtain approval of the department chairman to repeat a course more than two times. The student may be asked to justify their need for further course repetition.

Veterans should be aware that they cannot receive VA benefits for repeating courses passed.

FINANCIAL AID

The goal of Pitt Community College's Financial Aid Office is to provide assistance to students having financial need. Need is the difference between the cost of education and the amount the student and family can afford to pay, as determined by a standard formula. This amount is called "Family Contribution." Need is determined by evaluating the information provided on an aid application. Factors such as income, assets, and benefits are considered in determining the need for aid. All financial awards are determined by the institution's Financial Aid Committee. The Financial Aid Office is open on Tuesday evenings from 5:00 p.m. to 7:00 p.m. for the convenience of evening students.

Financial aid is awarded on an annual basis; therefore, students must submit new financial aid applications each year.

To receive financial aid, students must be enrolled in an eligible curriculum (degree or diploma). Students must maintain satisfactory academic progress according to the standards of the

College and not owe a refund on a grant or be in default on an educational loan.

The Financial Aid Office will mail an awards letter explaining the award amounts and dates of disbursement to each student applying for financial aid.

ACADEMIC REQUIREMENTS FOR SATISFACTORY PROGRESS TO MAINTAIN FINANCIAL ASSISTANCE

Federal regulations require Pitt Community College to define minimum standards of satisfactory academic progress which students must meet in order to receive Title IV financial aid which includes Pell Grant, Supplemental Educational Opportunity Grant, College Work-Study, Guaranteed Student Loan, North Carolina Student Incentive Grant, and funds from other federal or state administered programs.

A. Measureable Satisfactory Academic Progress

1. To maintain satisfactory academic progress, students must have earned a cumulative GPA according to the total number of quarter hours for which they have attempted as indicated below:

DIPLOMA AND CERTIFICATE PROGRAMS		ASSOCIATE DEGREE PROGRAMS	
Hours Toward Degree	GPA	Hours Toward Degree	GPA
0-15	1.00	0-15	1.00
16-30	1.35	16-30	1.25
31-40	1.75	31-45	1.50
41 and above	2.00	46-60	1.75
		61-75	1.90
		76 and above	2.00

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2. Students must also meet the requirements of the Measurable Time Frame Chart. For purposes of determining enrollment status, students who at the end of the drop-add period, are enrolled for 12 or more credit hours are considered full-time students. Students enrolled for 9 to 11 credit hours are three-quarter time students, and students enrolled for 6 to 8 credit hours are one-half time students. Students who are enrolled for 5 or less credit hours are less than one-half time students and will have the hours combined for use on the Measurable Time Frame Chart.

MEASURABLE TIME FRAME CHART

Quarter	Full-time	$\frac{3}{4}$ Time	$\frac{1}{2}$ Time
1st	8 (Total)	6 (Total)	4 (Total)
2nd	8 (16)	6 (12)	4 (8)
3rd	8 (24)	6 (18)	4 (12)
4th	8 (32)	6 (24)	4 (16)
5th	8 (40)	6 (30)	4 (20)
6th	8 (48)	6 (36)	4 (24)
7th	8 (56)	6 (42)	4 (28)
8th	8 (64)	6 (48)	4 (32)

B. Financial Aid Probation-Unsatisfactory Academic Progress

1. Students who fail to meet the requirements in A.1 for any quarter are placed on FINANCIAL AID PROBATION and considered to be making UNSATISFACTORY ACADEMIC PROGRESS. Students in this category may continue to receive financial aid for one additional quarter and if the requirements are not met at the end of this quarter, his/her financial aid will be terminated until the requirements are met for reinstatement.

2. Failure to meet the requirements in A.2. Measurable Time Frame Chart will result in immediate termination of financial aid.

3. Financial aid will NOT be disbursed to any student who received a 0.00 GPA for their last quarter of enrollment at PCC.

4. Students who receive financial aid and withdraw from school for two consecutive quarters will not be allowed to continue receiving financial aid until they have attended one quarter with no financial assistance and made satisfactory academic progress for this quarter. Unusual verifiable circumstances may be appealed to the Financial Aid Committee.

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C. Appeal Process

1. Students may appeal their suspension/termination of eligibility for financial aid only for "extraordinary circumstances" to the Financial Aid Committee.

2. Appeals must be in writing and accompanied by appropriate documentation and presented to the dean of students for action by the committee which is composed of the dean of students, the director of counseling, and the financial aid officer.

D. Procedures For Reinstatement

1. Students who have had their financial aid eligibility terminated may be reinstated in one of the following ways:

- a. By approval of the Financial Aid Committee, or
- b. By enrolling in the College without the benefit of financial assistance until the requirements in A.1 and A.2 are met.

2. Retroactive payments of financial aid for quarters when students were on probation is prohibited.

E. Incompletes

Students who receive incompletes in courses and who re-enroll in those courses in a subsequent term may include those hours for purposes of determining enrollment status.

F. Non-Credit Courses

Non-credit courses and courses that are being audited may not be included in a students' enrollment status for financial aid purposes.

GRANTS

Pell Grant

Pell Grants are awards to help undergraduates pay for their education after high school. For many students these grants provide a foundation of financial aid to which aid from other federal and non-federal sources may be added. Students should contact the Financial Aid Office for an application.

Supplemental Educational Opportunity Grant (SEOG)

A Supplemental Educational Opportunity Grant (SEOG) is for undergraduates with exceptional financial need (with priority given to Pell Grant recipients). Schools receive a limited amount of funds for the SEOG program, therefore, when the funds have been awarded, there will be no more funds for that year.

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North Carolina Student Incentive Grant

Undergraduate students who are legal residents of North Carolina accepted for enrollment or enrolled full-time in good standing may apply for the North Carolina Student Incentive Grant to help pay their educational expenses. Students must demonstrate "substantial financial need" as determined through the needs analysis systems.

Students may apply for this grant by checking the appropriate block and enclosing the appropriate fee on the financial aid applications. The deadline for the grant is March 15 of each year.

LOANS

Stafford Loans (formerly Guaranteed Student Loans)

Stafford Loans are low-interest loans made by a lender such as a bank, credit union, or savings and loan association. College Foundation, Inc., located in Raleigh, NC acts as lender for Pitt Community College students.

The maximum amount that a student can borrow is \$2,625 or the cost of education minus any other financial aid that you receive, whichever is less.

-For new borrowers who receive loans for periods of enrollment beginning on or after July 1, 1988, the interest rate is 8 percent for the first 4 years or repayment and 10 percent after that.

-For new borrowers who took out a loan between July 1, 1987 and June 20, 1988, the interest rate is 8 percent.

-For students who are not new borrowers and who currently have a 7,8, or 9 percent Guaranteed Student Loan, the interest rate(s) for any Stafford Loans borrowed in the future will remain 7,8, or 9 percent.

To be sure what your interest rate is, check your promissory note.

There is an "origination fee" of 5 percent, which will be deducted proportionately from each loan disbursement made to you. The fee is paid to the Federal Government to help reduce the Government's cost of subsidizing these low-interest loans.

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Repayment for Stafford Loans begins 6 months after you graduate, leave school or drop below half-time status. Students must notify the lender in any of these cases.

Before you can receive a Stafford Loan, PCC must first determine your eligibility for a Pell Grant. If you are eligible for the grant, the amount will affect the amount you can borrow from the Stafford Loan program.

Plus and Supplemental Loans

Plus loans are for parents who want to borrow to help pay for their children's education; Supplemental Loans are for student borrowers. Both loans provide additional funds for educational expenses. These loans have variable interest rates, adjusted each year and will be shown on the promissory note. The maximum amount that can be borrowed for each of these loans is \$4,000 per year. The lender may charge an insurance premium of up to 3 percent of the

loan principal. This premium must be deducted proportionately from each loan disbursement made to you. Plus and Supplemental Loan Borrowers generally must begin repaying both principal and interest within 60 days after the last loan disbursement made to you. There are no grace periods for Plus and Supplemental Loans.

Before you can receive a Plus or a Supplemental Loan, PCC must determine your eligibility for a Stafford Loan and for a Pell Grant. If you are eligible for aid from either or both of these programs, the amount of eligibility may affect the amount you may borrow under the Plus and Supplemental loan programs.

Burroughs Wellcome Loan Fund

Pitt Community College administers a loan fund which is supported by the Burroughs Wellcome Company. Eligible students may secure short-term loans at no interest (if paid in full by the due date).

Money obtained through this fund must be used for direct educational expenses which are limited to the costs of tuition, insurance fees, or supplies and books. These loans must be repaid before the end of the quarter in which the student received the loan. All loans must be secured by a promissory note with the signature of one other person as a surety. Please note that this loan is only for students who have no other sources of financial assistance. Students should contact the Office of the Dean of Students for an application.

Doris Hall Phelps Memorial Loan Fund

This fund was established in memory of Mrs. Doris Hall Phelps, who for several years was a loyal and devoted employee of the Learning Resources Center at Pitt Community College.

Eligible students may borrow money to pay tuition only. There will be 5% interest assessed on any money loaned. These loans are for short terms not to exceed two quarters. A cosigner will be required before any of these funds can be loaned. Students should contact the Financial Aid Office for more information.

PCC Emergency Loan Fund

This loan fund was established to provide short-term emergency loans for PCC students (at no interest if paid in full by the due date) who have no other sources of financial assistance. These loans must be repaid before the end of the quarter in which the student received the loan. All loans must be secured by a promissory note with the signature of one other person as a surety. Students should contact the Office of the Dean of Students for more information.

PCC Nursing Loan Fund

A PCC Nursing Loan Fund has been established to assist students with short-term loans in order that they may continue college and thereby achieve their career goals. The amount to be loaned will normally not exceed \$250. All loans must be paid in full nine months after graduation. Nursing students may obtain a loan application from the Financial Aid Office.

COLLEGE WORK-STUDY

The College Work-Study Program provides jobs for undergraduates and graduates who have a financial need as determined by College Scholarship Service or American College Testing Program. Students are paid monthly and will receive federal minimum wage for hours of satisfactory work completed. Work schedules will be set up by the financial aid office and the student's supervisor and will vary according to class schedules. Awards are made on a yearly basis and are subject to the availability of funds.

REFUND/STUDENT REPAYMENT POLICIES FOR TITLE IV PROGRAMS

When a student recipient of Title IV Financial Aid funds withdraws or is dismissed from Pitt Community College prior to the end of an academic period, the institution will determine whether and to what extent such student received overpayment from such funds. This determination will be based upon any discrepancy between the amount of allowable costs (Educational cost including room, board, books, supplies, transportation and miscellaneous expenses) incurred by the student up to the date of withdrawal and the amount of Title IV funds received by said student prior to that date.

Overpayment funds reimbursed to the institution by the student shall be re-credited to the specific Title IV program from which they were originally allocated.

SCHOLARSHIPS

Baer Academic Scholarship

This scholarship was established to encourage and reward academic excellence in pursuit of a College Transfer or Technical Degree while attending Pitt Community College. A lump sum award (not to exceed \$100) will be made at the beginning of each Fall Quarter. This will be used to offset the cost of tuition, fees, and other expenses. Applicants must be employed sophomores working a minimum of ten hours per week. All applicants must be Pitt County residents. Contact the scholarship coordinator for more details and for an application.

Carolina Power and Light Company Scholarships

This scholarship was made possible by CP&L to provide educational funds to students residing in the CP&L service area who are seeking two-year degrees which support the further economic development of the service area. There will be one scholarship awarded in the amount of \$500. The candidate shall be selected and the scholarship awarded without regard to the race, sex, color, creed, religious preference, age, or national origin or handicap of each candidate. Family members of CP&L employees shall be considered on an equal basis with all other candidates. Other factors to be considered in the selection process will include, but will not be limited to scholastic achievement, individual financial need, participation in outside activities, and a demonstrated interest in a technical or college transfer degree. Contact the Scholarship Officer for an application.

Carolina Telephone Scholarship Program

Two scholarships in the amount of \$500 each will be awarded to North Carolina residents enrolled or intending to enroll in a course of study leading to a technical degree or vocational diploma. The purpose of the scholarship is to make educational funds available primarily to those persons who are hardest hit by recession and chronic unemployment — minorities such as blacks, Indians/native Alaskans, or orientals; and “displaced worker” such as a person who has lost his/her job because of obsolete job skills or because of economic recession in his/her former field of employment.

The student must maintain a Grade Point Average of at least 2.0 (C) and must continue at Pitt Community College for the duration of the scholarship. Students may contact the Scholarship Office for an application.

Carolina Telephone College Transfer Scholarship

This scholarship was formed for the purpose of providing educational funds to residents of North Carolina enrolled in a college transfer program. There will be one scholarship awarded annually in the amount of \$500. Priority will be given to minorities. Carolina Telephone defines minorities as blacks, Spanish surnamed Americans, American Indians/native Alaskans, and Orientals; and “displaced worker” as a person who has lost his/her former field of employment. Contact the Scholarship office for additional criteria and an application.

Coastal Plains Chapter-Professional Construction Estimators Association Scholarship For Architectural Drafting Students

The purpose of this scholarship is to provide financial assistance for a maximum of three first-year Architectural Drafting Technology students at Pitt Community College progressing into the

second year of the curriculum. The maximum amount to be awarded per academic year is \$300 for tuition, required fees, books, supplies, and other related expenses. Contact the Office of the Dean of Students for more information.

Phillip L. Clark NOW Fund

Scholarships will be awarded to students to attend off-campus activities such as workshops, conferences, and seminars related to curriculum and/or personal professional growth, rather than for full-time scholarships. Funds are available to full-time or part-time students enrolled at PCC in either technical, vocational, or college transfer programs. Maximum amount awarded to any one student is \$100 at a time.

For applications and other information, contact any faculty member of the Human Services Technology program.

Diesel Mechanics/Agricultural Servicing Scholarship

The farm equipment dealers of Pitt County and eastern North Carolina have made available to students enrolled in the Diesel Mechanics/Agricultural Servicing program at PCC scholarships in the amount of \$288 each. The number of scholarship awards made annually is determined by the amount of scholarship funds available. Recipients are selected based on need, academic achievement, performance, and a proven interest toward pursuit of Diesel Mechanics/Agricultural Servicing as a career. Students may contact the Scholarship Office for more information.

William E. Fulford, Jr. Memorial Scholarship

This scholarship was established by the family of Dr. William E. Fulford, Jr., President of Pitt Community College from 1964-1984. It is awarded annually to a Pitt County student enrolled in the second year of a two-year technical or college transfer program. Its purpose is to reward and encourage academic excellence. This scholarship will be for \$250 per academic year to be dispersed on a pro rata basis for three (3) quarters. It shall be used for tuition and fees, books, supplies, and other expenses. Contact the Scholarship office for an Application.

Walter B. Jones Scholarship

This scholarship has been established by the North Carolina Community College Alumni Association to honor Congressman Walter B. Jones for his dedication and service to the people of Pitt County and his general constituency area in Eastern North Carolina. one (1) scholarship shall be awarded annually valued at \$225 to a deserving

student. This student may be day or evening, full-time or part-time. All applicants must be residents of North Carolina. Contact the Scholarship Office for an application.

North Carolina Community College Scholarship

There will be approximately 20 scholarships awarded annually. These awards are in the amount of \$400 each to be disbursed at the rate of \$100 per quarter. To qualify as a candidate a person must meet the following criteria: Must be a North Carolina resident, enrolled, or intend to be enrolled as a full-time or part-time student in a curriculum program, and maintain a passing grade average at or above the level required for graduation. Priority in awarding the scholarship will be given to those with greatest financial need as determined by the local financial aid committee, minorities (minorities defined as Blacks, American Indians, Spanish Surname Americans, Native Alaskans, and Orientals) enrolled in college transferable curriculum programs, displaced persons who are seeking new job skills, women in non-traditional curriculum programs, and those students who have participated in ABE, GED, or High School Diploma programs. Contact the scholarship coordinator for an application.

PCC Foundation Scholarship for Academic Excellence

These scholarships are made available by the PCC Foundation. Two scholarships are awarded annually to reward and encourage academic excellence in pursuit of a Technical or College Transfer education. The two shall consist of one College Transfer and one Technical award. Each award shall be for a total of \$500. To be eligible, one must be enrolled full-time or intending to enroll full-time. If a transfer student, he/she must have completed a minimum of 30 hours in residence at PCC. Each application must be accompanied by a letter of recommendation by an individual's academic advisor. All recipients must maintain a 3.5 or better grade point average.

PCC Foundation Technical Scholarship

These scholarships are made available by the PCC Foundation. Its intent is to reward and encourage individuals in pursuit of a technical degree at Pitt Community College. To be eligible, one must be enrolled or intending to enroll full-time in a technical program. If a transfer student, he/she must have completed a minimum of 30 ours in residence at PCC. Each scholarship will be valued at \$400. Contact the scholarship coordinator for an application.

PCC Foundation Vocational Scholarship

These scholarships are made available by the PCC Foundation and are to reward and encourage individuals in pursuit of a vocational education at Pitt Community College. To be eligible, one

must be enrolled or intending to enroll in a vocational program while attending Pitt Community College. These scholarships will be awarded annually valued at \$400 each. All awards will be based on a quarterly basis. Each recipient must maintain a 3.00 or better grade point average. Contact the Scholarship Office for an application.

PCC Institutional General Scholarship

This scholarship has been established for full or part-time students enrolled in a technical, vocational, or college transfer program. Selection is based on academic performance as well as need. Students may contact the Scholarship Office for an application.

PCC Memorial Scholarship/Loan Program for Vocational and Technical Students

(A scholarship for high school graduates in Pitt County to attend PCC, one per school)

This scholarship awarded annually, rewards and encourages academic excellence in pursuit of vocational and technical education at Pitt Community College by providing financial assistance in the form of scholarships for outstanding high school graduates.

Pitt County school system's high school seniors who plan to attend Pitt Community College and enroll in vocational or technical programs are eligible to apply. Scholarships valued at \$288 each will be awarded to one graduate of each of the following high schools:

J. H. Rose High School
Ayden-Grifton High School
D. H. Conley High School
Farmville Central High School
North Pitt High School

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The scholarship recipient will be initially selected on the basis of high school academic achievement, interest in pursuing a vocational/technical career, and financial need. Students should contact the director of counseling at their high school for an application.

Limited monies are available for loans to deserving students. Students should see the Scholarship Office for information pertaining to loans.

Perkins Scholarship/Grant Trust Fund

A trust fund has been established by James J. and Mamie R. Perkins to enable and encourage deserving Pitt County residents, who otherwise could not, to attend Pitt Community College. Eligibility for these scholarships/grants are based on financial need as determined

by the institution. Recipients must be natives and current residents of Pitt County. Contact the dean of students, or the Scholarship Office for more details.

Prepshirt Scholarship

Prepshirt Manufacturing Corporation has donated funds for scholarships to be used by Prepshirt employees and their families. Contact the Scholarship Office for information.

Scholarship for Current Pitt Community College Students

This scholarship, awarded annually, rewards and encourages academic excellence in pursuit of vocational and technical education at Pitt Community College by providing financial assistance in the form of scholarships for current PCC students.

Current full-time PCC students who have completed at least three (3) quarters of college work at PCC and plan to pursue the completion of a two-year vocational or technical program at PCC are eligible to apply. Three scholarships valued at \$250 each will be awarded. The scholarship recipient will be initially selected on the basis of academic achievement at PCC, demonstrated interest in pursuing a vocational/technical career, and financial need. Contact the Scholarship Office for an application.

Service Roofing Scholarship

This scholarship is awarded annually to students who chose and pursue the building trades as a career; to help ensure the availability of craftsmen for the building trades in Pitt County and surrounding areas; and to assist these students if they have a financial need. Curriculum students to be considered include Air conditioning, Heating, and Refrigeration, Carpentry and Cabinetmaking, Electrical Installation and Maintenance, and Masonry. Contact the Scholarship Office for an application.

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Wachovia Technical Scholarship

Wachovia Bank and Trust Company has made available to students enrolled in technical programs at PCC two scholarships annually in the amount of \$500 each to second-year students. The scholarships will be awarded based on need and the student's performance in the first year of a two-year technical program. Students should contact the Scholarship Office for an application.

Vernon E. White Scholarship

This endowment program was established by the people of Pitt County to honor the service and contribution of Senator Vernon E. White to the Pitt County community. Through this endowment a scholarship was established at Pitt Community College. Its purpose is to reward and encourage academic excellence in pursuit of vocational and technical education by providing financial assistance in the form of a scholarship to be awarded to an outstanding student annually. Contact the Scholarship Office for an application.

Danny K. Woods Scholarship

Alpha Omega Chapter of Epsilon Sigma Alpha International sponsors a scholarship to provide financial assistance in the form of tuition and required fees for a J.H. Rose High School graduate who is a first-year accounting student at Pitt Community College. Initially, the scholarship recipient will be selected on the basis of high school academic performance, financial need, and professionalism. Students should contact the J.H. Rose High School director of counseling for an application.

OTHER SOURCES OF ASSISTANCE

Job Training Partnership Act

This program is a source of financial aid which can be utilized to offset cost of training for individuals deemed eligible. For further information, contact the director of occupational extension in the Office of Continuing Education.

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Vocational Rehabilitation

Any person who has a substantial physical or mental condition which prevents employment may be eligible for services from the North Carolina Division of Vocational Rehabilitation Services. If eligibility is determined, financial assistance for educational costs may be provided as part of a total rehabilitation program. For further information contact any Vocational Rehabilitation unit office. The Greenville unit office is located at 226-A Commerce Street. The telephone number is 756-3642.

North Carolina National Guard Tuition Assistance Program

Active North Carolina National Guard members who have a minimum of two years remaining as a member of the Guard from the end of the academic period for which tuition assistance is requested may be eligible for tuition assistance. Persons desiring information or applications for this assistance should contact their unit representative.

Local Sources of Financial Aid

Students are encouraged to keep in touch with their respective high school guidance counselors in order that they may be aware of the various kinds of scholarships granted by hometown civic clubs, church groups, or other nonprofit associations or foundations.

Veterans Benefits

The Veteran Benefits Laws provide financial assistance to any veteran enrolled in an approved curriculum and eligible for benefits. To be eligible, the veteran student must be enrolled in a approved curriculum and taking (for pay) only those classes required for graduation in the chosen curriculum. Veteran students must maintain satisfactory attendance, conduct, and academic progress, according to the school standards, for continuing eligibility for payment.

V.A. payments for veterans in a technical or college transfer program are based on credit hours per quarter as indicated below:

12 or more credit hours	full-time
9-11 credit hours	three-quarter-time
6-8 credit hours	half-time
Below 6 credit hours	no pay

V.A. payments for veterans in a vocational program are based on a combination of credit hours per quarter and contact (clock hours in school) hours per week as follows:

12 credit and 22 contact hours	full-time
9-11 credit and 16-21 contact hours	three-quarter-time
6-8 credit and 11-15 contact hours	half-time
Below 6 credit and 11 contact hours	no pay

Records of Progress are kept by this institution on veteran and non-veteran students. Progress records are furnished at the end of each scheduled school term.

The Pitt Community College Veterans Affairs office is open Monday through Friday from 8:00 a.m. to 5:00 p.m. and on Tuesday from 6:00 p.m. to 8:00 p.m. for the convenience of evening students.

Dependents of Veterans

The veterans administration offers up to 45 months of educational benefits for qualified dependents of certain disabled or deceased veterans. An allowance of up to \$376.00 per month is made to students under the program.

For further information on V.A. benefits, the student should contact the Veterans Affairs Office, the N.C. Division of Veterans Affairs, or the V.A. Regional Office at Winston-Salem.

THE FACULTY ADVISOR SYSTEM

The faculty advisor system is designed to make a contribution to the students' educational progress. Students who have declared curricula are assigned a faculty advisor. Students may know their advisors not only as instructors, but also as one form whom they may receive assistance in program planning, scheduling, and registration. The objectives of the faculty advisors are as follows:

- To have a conference with each new advisee as soon as possible to get acquainted.
- To be alert to student problems in order to assist the student in both academic and personal matters. (Problems which the advisor feels unqualified to handle should be referred to the counselors' office.)
- To assist the individual student in planning an academic schedule to meet course prerequisites and curriculum requirements. To assist the student in completing the graduation checklist.
- To maintain an academic progress file on each advisee. (This file should include grade reports, a graduation checklist, and an information sheet.)
- To post office hours, showing when available for consultation with students.
- To serve, upon request of the student, as the student's representative in conferences where decisions affecting status are made.

STUDENT SERVICES

Counseling

Counseling services are provided by trained personnel and are available to every curriculum student from pre-admission through graduation. There is no charge for these services.

Students may visit a counselor's office any time a problem arises which could affect progress in school. The counselor will try to have at least one conference per year with each student. The Counseling Office is open Monday through Thursday from 8:00 a.m. to 8:00 p.m. and Friday 8:00 a.m. to 5:00 p.m.

Tests are administered by the counselors on a group or individual basis for admission, placement, career development, and personal problem solving (interest inventories or personal interviews). Test results are available and are interpreted by the counselors at the request of faculty members or students.

After the initial placement testing, students obtain specific career information about their program of study from the CHOICES guidance system (Computerized Heuristic Occupational & Career Explanation Guidance System). They may compare or explore occupations according to their needs.

The counseling department speaks to community groups regarding career choices and effective ways to improve test scores. Workshops are scheduled to meet the community needs and to inform them of the advantages of using computer assisted testing and career planning systems.

The department of counseling remains in touch with students throughout their college years to facilitate the fulfillment of their plans and to make their educational endeavors meaningful and optimally productive.

Student Support Services

The purpose of student support services is to help students graduate by providing services for eligible students who may lack adequate preparation for college or who have special needs. These services include free tutoring, help with learning better study skills, academic counseling, assistance to the physically handicapped, and assistance to learning disabled students. To obtain more information about the program, contact staff personnel in Trailers 3 and 6.

Career Planning and Placement Center

The Career Planning and Placement Center assists students and graduates in career decision-making, planning for marketability, and job search. There is no charge for any of the services. The center is open Monday through Friday from 8:00 a.m. to 5:00 p.m. and on Monday evenings from 5:00-8:30 p.m. for the convenience of evening students.

The staff offers assistance to individuals and groups in the development of career goals by examining interests, aptitudes, values, and exploration of career interests. Individuals may also use SIGI PLUS, a computerized career planning program. Educational and career resources available include information on careers such as educational requirements, personal qualities, job prospects, locations, details on the nature of the work, salary ranges, and opportunities for advancement as well as 4-year college catalogs, employer information and applications, and job opportunity listings.

Placement services are provided for Pitt Community College students and alumni who register with the center. Up-to-date information on job openings from private, governmental, and educational institutions is available. The staff offers help in resume

preparation, completing job applications, interview skills, and creative job search strategy.

The Career Planning and Placement Center is the liaison between Pitt Community College and potential employers. All students and alumni are encouraged to register with the center.

Health Services

Pitt Community College maintains no health facilities. First aid supplies are located in the Office of the Dean of Students and in the laboratories and shops. No oral medicines are dispensed. The responsibility for medical services rests with students and their parents or guardians. Emergency facilities are available at Pitt County Memorial Hospital. Entering students are required to answer the health questionnaire on the application for admission form. Student accident insurance is available.

Food Service

The College has a hot food service operated in the student lounge. Hot sandwiches, other short-order items, and fountain drinks are available. Hours of operation are 6:30 a.m. -3:00 p.m. - Monday-Friday and 5:00 p.m.-9:00 p.m. Monday-Thursday.

Vending machines for soft drinks, cigarettes, and snacks are located in each building.

Housing

The College does not provide housing facilities for students either on or off campus. It does, however, maintain a list of housing available in the Greenville area. There is no other involvement on the part of the College. Students are responsible for obtaining their own housing.

Student Government Association

Pitt Community College has a Student Government Association. Each curriculum elects one representative and one alternate to the Association. Officers are elected from this body annually. Activities supported by the SGA include Pitt Community College athletic teams, field days, dances, cookouts, community projects, and intramural sports.

ROTC

All students enrolled in a two-year college transfer or technical associate degree program as full-time students are eligible candidates for enrollment in the East Carolina University (ECU) Army

and Air Force ROTC programs by mutual agreement. Students will receive two credit hours per quarter or six credit hours per year which could apply as electives toward degree requirements at Pitt Community College dependent on the program. If students continue their education beyond the associate degree program and transfer to ECU, they will receive up to four semester hours of ROTC transfer credit per year. This opportunity is for both male and female students who meet ROTC screening requirements.

ROTC classes will be held on the campus of ECU. Uniforms will be furnished at no cost to students. There will not be additional tuition charged for students who are full-time. Interested students should contact ECU for ROTC class schedules.

Identification Cards

All day students must have a valid Pitt Community College ID card while on campus. ID cards will be made for students during the second or third week of each quarter (see Student Services Office for schedule).

The ID card will admit students to social, cultural, and educational events sponsored by the College.

Gamma Beta Phi

Gamma Beta Phi is an honor society chartered in 1975. Membership is based upon a GPA of 3.0. Gamma Beta Phi comes under the supervision of the SGA.

Student Publications

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Pitt Community College publishes the following:

- College Catalog
- Student Handbook
- Program Brochures
- New Student Information Guide
- CO-Op Newsletter
- PCC Weekly Bulletin

Guided Tours

Many groups visit Pitt Community College during the year for the purpose of investigating the facilities and opportunities available in vocational, technical, and college transfer education.

Groups are assembled in the lobby of the Vernon White Building where they are greeted by a representative from the Student

Services Division. Large groups are divided into smaller groups and taken on a guided tour of the College. All programs are explained to the groups as the tour progresses. In addition to seeing classes and shops, the groups are also taken to the Learning Resources Center and the Learning Center.

Class Rings

All orders for class rings will be made with the dean of students. Notices will be posted relevant to dates for measurements. Students are urged to be prompt when making these orders.

Traffic Regulations

All automobiles operated on the campus by day students and college personnel must be registered with the office of the Chief of Security. Parking permits are purchased for each registered vehicle and must be displayed on the left side of the rear bumper. The operators of automobiles on the campus are subject to specific parking and traffic regulations. The College reserves the right to withdraw the privileges of operating an automobile on the campus for failure to abide by the regulations.

Inclement Weather

The College President will make the decision as to whether or not classes will be held during periods of inclement weather. Announcements will be made on local radio and television stations.

Fire Drills

Fire drills will be held periodically. The fire alarm consists of a pulsating, repeated sounding of an alarm. Personnel will exit at the outside door closest to where they are at the time the alarm is sounded and proceed in an orderly manner to a safe distance from the building. The all clear signal is a long sounding of the bell system.

Student Rights And Responsibilities

Students are responsible for the proper completion of their academic program, for familiarity with all requirements of the curriculum from which they intend to graduate, for maintaining the grade average required and at all times knowing their academic standing, and for meeting all other degree requirements. Their advisors will counsel them, but the final responsibility remains that of the student.

Students are required to have knowledge of and observe all regulations pertaining to campus life and student behavior. They are responsible for maintaining communications with Pitt Community College by keeping on file with the Office of Admissions and Records at all times their current address and telephone number.

Copies of the Rights and Freedoms of Students can be obtained from the Office of the Dean of Students.

Disciplinary Action

Student Conduct

It is expected that at all times students will conduct themselves as responsible adults. Destruction of school property, stealing, cheating, gambling, use of profane language, engaging in personal combat, possession of dangerous weapons, or the possession and/or use of alcoholic beverages and/or the possession and/or use of any drug as defined under the North Carolina Controlled Substance Act, G.S. 90-89 through G.S. 90-94 in or on any part of the Pitt Community College campus will not be tolerated. Any violation of these regulations may result in expulsion from the College. In addition, any infraction which is a violation of N.C. law may be turned over to the local authorities.

Dismissal

A student may be dismissed from a class or from the College for conduct or personal habits which are not in the best interest of the student and of the College.

Information on dismissal and reinstatement procedures may be obtained from the Office of the Dean of Students.

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Due Process

Students who question the fairness of disciplinary action taken against them are entitled to due process by submitting a written notice of appeal. The appeal is heard by the Hearing Committee (Judicial Review Board), which is composed of two representatives of the Student Government Association and two faculty members appointed by the Executive Vice President of the College. The decision of the committee is final, subject only to the student's right of appeal to the President of the College or ultimately to the Board of Trustees. The provisions of due process will be applicable to all actions involving suspensions, extensions, probation, and dismissal. Additional information may be obtained from the dean of students.

SUBSTANCE ABUSE AND COMMUNICABLE DISEASE POLICY

Pitt Community College recognizes its responsibility to provide

- A wholesome environment of health education awareness for students, faculty, and staff,
- A climate which discourages alcohol and substance abuse and the spread of communicable diseases, and
- The implementation of those measures which foster good school/community relations in the pursuit of maximized learning experiences for all its students.

Pitt Community College will conduct educational programs as needed to inform students, staff, and faculty about substance abuse and communicable diseases, including warning signs and preventive measures. The educational program may include, but not be limited to, written publications, audio and video presentations, guest speakers, seminars, workshops, health fairs, and other similar publications and activities. The College will also appoint a task force, composed of representatives from all segments of the institution, to advise and assist in implementing policies, programs, and procedures in support of these endeavors.

Substance abuse assistance will focus on actions such as:

- Providing existing human resources for early intervention for individuals with a chemical problem,
- Offering educational drug abuse prevention programs,
- Referring persons needing assistance to existing community agencies, while preserving the dignity of the individual and the confidentiality of their student record, and
- Referring students exhibiting erratic and/or disruptive behavior to the dean of students where students will be subject to disciplinary action.

The possession and/or use of any drug as defined under the North Carolina Controlled Substance Act, G.S. 89-90 through G.S. 90-94 in or on any part of the Pitt Community College campus will not be tolerated. Any infraction which is a violation of Federal or N.C. Law will be turned over to local authorities.

Policies regarding communicable diseases are as follows:

- Persons infected with a communicable disease will not be excluded from enrollment or employment or restricted in their access to college services or facilities unless medically-based

judgments in individual cases establish that exclusion or restriction is necessary to the health and safety of the individual or to the health and safety of other members of the College community.

- Any student, college employee (either full-time or part-time) and any employee of contractors or contracted services who knows or has reasonable basis for believing that he or she is infected with a communicable disease has the responsibility of reporting this fact, on the confidential basis, to the appropriate dean.
- Persons who know or have reasonable basis for believing that they are infected with a communicable disease are expected to seek expert advice about their health circumstances and are obligated ethically and legally to conduct themselves responsibly in accordance with such knowledge for the protection of other members of the community.
- The College will widely publicize and carefully observe the safety guidelines established by the U.S. Public Health Service and the Center for Disease Control for the handling of blood and other body fluids and secretions in all areas of the College where such fluids or secretions may be encountered.

LEARNING RESOURCES CENTER

The Learning Resources Center (LRC) at Pitt Community College includes Library Services, Audiovisual Services, and Media Production Services. The primary purpose of the LRC is to provide learning resources and services to support and enrich the educational programs of the College. These resources and services are available to students, faculty, and staff of Pitt Community College and to the adult citizens of Pitt County.

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LRC resources and services include a wide variety of print and nonprint materials, technical equipment, support facilities, and specialized services. The print materials collection includes books, magazines, newspapers, pamphlets, government publications, and other printed materials. Audiovisual materials in the LRC collection include films, filmstrips, filmloops, transparencies, slides, audio and video tapes, and records. Microfilm copies of back issues of selected magazines and newspapers and certain historical records of the Pitt County area are also available for use in the LRC. Equipment needed for the utilization and duplication of certain instructional materials is provided by the LRC.

Several conference rooms in the LRC are available for scheduled faculty and student meetings.

A staff of professional librarians, media specialists, technicians, and assistants provide instruction and assistance in the

use of LRC materials, equipment, and services at all hours the LRC is open.

The LRC is open Monday through Thursday from 7:45 A.M. to 9:30 P.M. and on Friday from 7:45 A.M. to 5:00 P.M. (closed Saturdays, Sundays, and holidays). Located in the Clifton W. Everett Building, the LRC is arranged and furnished to provide a pleasant atmosphere conducive to study and to leisure-time use of the variety of resources and services available.

COOPERATIVE EDUCATION (CO-OP)

The cooperative education program is designed to give students the opportunity to integrate their classroom study with practical experience in their major fields by working and attending school in the optional plans.

Eligibility

All students enrolled in programs offering CO-OP for academic credit who have completed one quarter or who are already employed in work-related jobs are eligible to enter the cooperative education program if they meet the following requirements:

1. Students must have a 2.0 GPA and/or approval of the department chairperson and director of cooperative education.
2. Students must plan to graduate from Pitt Community College.

Application Procedure

Students interested in the cooperative education program should follow the procedure outlined below:

1. The student will obtain an application form from the Cooperative Education Office and make an appointment with the CO-OP office to review the completed application.
2. The director or the coordinator will conduct an interview with the student with regard to career goals and possible CO-OP assignments.
3. If the student is accepted, the director of cooperative education and the department chairperson or advisor will be prim resources in locating and/or approving an appropriate CO-OP assignment.

Academic Credit

1. One (1) credit hour will be given for the satisfactory completion of each quarter's cooperative training assignment of ten hours

per week. Grades given by the faculty advisor will be based on reports and evaluations submitted by the student and the employer. Reports of credit will be made to the Office of Admissions and Records by the director of cooperative education.

2. A student may receive a maximum of two credit hours during any one quarter. Each curriculum program specifies the maximum number of credit hours allowed toward degree or diploma requirements.
3. Credits earned with the approval of the department chairperson are used as substitutes for required or elective courses within the curriculum guidelines. Specified programs require cooperative education credits.
4. Students enrolled in a college transfer program can earn up to six (6) credit hours of add-on credit.

Students interested in cooperative education should visit the CO-OP Office or contact their faculty advisors. The CO-OPO Office is open Monday through Friday from 8:00 a.m. to 5:00 p.m. and Monday evenings from 6:45-8:30 p.m. for the convenience of evening students.

CONTINUING EDUCATION

The Continuing Education Division at Pitt Community College serves adults from the community, business, and industry. Various programs are offered for the individual to meet particular needs and interests. Opportunities exist to upgrade occupational skills, to acquire new skills, to complete high school, and to pursue activities for personal enrichment.

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Classes are held on campus and in off-campus facilities such as public schools, community buildings, churches, civic centers, industrial plants, and fire stations.

Each course is open to adults who are not enrolled in a secondary school. However, high school students 16 years or older are permitted to enroll with approval from the appropriate public school official.

Schedule of Courses

A schedule of Continuing Education classes is published quarterly and distributed throughout Greenville and surrounding areas. Classes are organized upon demonstration of sufficient interest and availability of the required facilities and instructors. Newspaper, radio,

and television are utilized to announce course offerings. Classes are usually held from 7:00 p.m. to 10:00 p.m.; however, classes can be scheduled for mornings or afternoons.

Course Credit

Generally courses offered in the Continuing Education Division are noncredit; however, credit will be given in the Adult High School Diploma Program. CEU's (Continuing Education Units) are also awarded for certain courses and seminars. (Ten contract hours of class earn one CEU.) Written acknowledgement of course completion or participation may be provided to individuals upon request.

Registration and Attendance

Registration for classes is normally completed at the first class meeting on a first-come, first-served basis. A minimum of 14 persons is usually needed to begin classes. If regular attendance falls below six people, the class may be discontinued.

Fees

A small registration fee is required for all noncredit courses (for Driver Training there is an additional fee) and must be paid at the first class meeting. There is no charge for registration for students 65 years of age or older. Accident insurance is available to all students. Students in laboratory courses requiring the use of equipment and machinery must either purchase insurance or sign a waiver form.

Course Descriptions

Course descriptions are available upon request by calling or visiting the Continuing Education Division. Individuals who desire counseling or other special assistance may contact either the instructor or the directors in the Continuing Education Division.

Books and Supplies

Most continuing education courses do not require textbooks. When a text is required, students will be notified at the first class meeting. Students are generally responsible for their class supplies.

General Adult Education

The General Adult Education Program consists of noncredit courses which enable the adult to develop a skill in an area of interest.

Adult Basic Education

Adult Basic Education is designed to improve the reading and math skills of persons who seek self-improvement through organized classes. The goal of the program is to help the student function more effectively in day-to-day life. Computer-based instruction is available as an added incentive for students working towards reaching their goals. Classes may be established throughout the Pitt County area and may be co-sponsored with churches, schools, or community organizations. Groups interested in developing a class (at least 10 people) may contact the adult basic education director at Pitt Community College. There are no charges for the classes or materials.

Adult High School

Adult High School classes are designed to prepare the adult to take the General Educational Development (GED) tests. Adults may enroll in morning, afternoon, or evening classes at specified locations in Greenville and Pitt County areas. Program content covers reading and writing skills, mathematics, social studies, and science. There are no charges for the classes.

General Interest Offerings

The following are examples of general interest courses

Art: Painting, Drawing, and Sketching	Knitting
Arts and Crafts	Macrame
Auto Care and Tune-up	Needlepoint
Baking and Decorations	Prenatal Education (Lamaze)
Calligraphy	Pottery
Conversational French German, Spanish	Rug Hooking
Creative Writing	Seasonal Decorations
Crewel Embroidery	Sewing
Crochet	Sign Language
Investments and Securities	Spinning and Natural Dyes
	Weaving

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The Learning Center

Adult Basic Education classes (reading and math improvement), GED preparation classes, and general interest courses are offered in the Learning Center located in the Everett Building on the Pitt Community College campus.

Instructors may choose books, computers, or other teaching resources. Courses are available during the designated Pitt Community College hours of operation, day and night.

High School Diploma Equivalency

Adult residents of North Carolina who have not completed high school may earn a High School Diploma Equivalency by passing a battery of five tests. These tests, the General Educational Developmental tests, are also known as the high school diploma equivalency tests.

A High School Diploma Equivalency is recognized by employers and educational institutions and is issued by the North Carolina Department of Community Colleges. Pitt Community College is one of 71 official GED testing centers in the state and is the only one in Pitt County.

Persons interested in further information or in taking the GED tests should contact the Learning Center. The center administers the tests by appointment. There is a \$5.00 fee for taking the GED tests.

Adult High School Diploma Program

The Adult High School Diploma program provides instruction designed to qualify a student for a Pitt County Schools diploma. To enter, a coordinator explains the procedures and options and also conducts or schedules admission tests. The results of the tests are reviewed, and the appropriate level of instruction is identified. Students must successfully complete all required courses and pass the N.C. Competency Tests in order to receive the diploma.

Occupational Extension

Occupational courses are offered for employed persons needing to upgrade their skills or for persons seeking employment at the skilled technical and vocational level.

General Occupational Courses

The following are examples of general occupational courses:

Activity Coordinator Training	Estimating for the Building Trades
Aviation Ground School	First Aid
Blueprint Reading	Job Preparation
CPR	Mathematics (Basic)
Chore Service Provider	Outboard Motor Repair
Emergency Medical Technician (Basic)	Small Engine Repair

Specialty Occupational Programs

Fire Service Training

Fire Service Training is designed to provide firemen the opportunity to gain technical information and skill in modern fire fighting through a variety of learning experiences. Usually these courses are

conducted in the local fire departments for the volunteer firemen, who train as an organized group utilizing equipment and methods they would ordinarily use in preventing and suppressing fire.

Some of the subject areas for volunteer firemen are as follows: arson detection, compressed gas emergencies, fire apparatus practices, hazardous materials, introduction to fire fighting, ladder practices, hose practices, protective breathing equipment, and fire fighting procedures.

Courses such as Home Safety, Fire Prevention, and Industrial Fire Brigade Training are available to the public and industry as well as fire service personnel.

Hospitality Training

This program is provided to train hotel-motel managers, food service personnel, waiters, waitresses, cooks, and maids or any other individual or group in the hospitality field.

Hospitality education has three objectives: (1) to develop, within individuals, skills that will qualify them for better employment opportunities in the hospitality field; (2) to provide employers with well-trained personnel to operate their businesses; and (3) to provide better hospitality. Some of the courses are as follows: Front Office Procedures, Human Relations, Communication, Basic Nutrition and Menu Planning, Overview of School Food Service, Use and Care of Equipment, Quantity Cooking, and Quantity Food Preparation.

Law Enforcement Training

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Several short courses and seminars are conducted to upgrade and train law enforcement officers. Some courses are as follows: Introduction to Police Science, Courts and Law, Laws of Arrest, Search and Seizure, and General Criminal Investigation.

The College also offers two-year associate degrees in criminal justice.

Management Development Training

Management Development Training Courses are designed for potential and active supervisors who want to prepare for more effective leadership and advancement. Courses are offered both on and off campus. The courses are flexible in terms of content and meeting times. Every effort is made to fit course content to particular individual, industrial, or business needs.

Professional In-Service Programs

Teacher Certificate Renewal: Local superintendents responsible for providing in-service training for teachers coordinate with the Continuing Education Division to develop special courses designed to meet the needs of the local school unit. The division assists in the development and presentation of approved courses by providing needed personnel, facilities, and services in coordination with the local school unit.

Other Professional In-Service: Various institutions and agencies require employee upgrading through the offering of in-service classes. The division of continuing education coordinates with each agency to develop the in-service program most appropriate to its needs.

Special Industrial Training

New Industry Training (NIT)

Expanding Industry Training (EIT)

Focused Industrial Training (FIT)

Classes may be arranged to meet specific needs such as training people for new industries locating in the area, training new people for certain industry expansion programs, and training existing skilled or semi-skilled workers in new product manufacture or for new technology.

These classes may be held at the industrial site, on campus, or at some other convenient location. Courses are designed specifically for and may be scheduled at times convenient for the interested groups or industries.

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For information and assistance in developing courses in special industrial training areas, call the dean of continuing education or the director of industrial training.

Small Business Center

The Small Business Center at Pitt Community College is designed to respond to the training needs of the area's small business owners, managers, personnel, and others in business as well as those who plan to start a small business. Training sessions are offered continuously in the form of workshops, seminars, and courses. Pertinent topics such as management, marketing, advertising, accounting, and salesmanship are covered in the training sessions.

Specific courses offered continuously are

Starting a Small Business

Recordkeeping for Small Business

Small Business Sales
Small Business Supervision
Financial Planning for Small Business
Customer Relations
Marketing
Microcomputers

Other courses are scheduled as needed.

The Small Business Center serves as a resource center to provide publications and video viewing to help with small business problems.

Management aids provided by the Small Business Administration (SBA) are available as well as the SBA Starting-Out series for people planning a new business.

The Small Business Center also provides consulting by appointment.

An important function of the Small Business Center is to create within the business community an awareness of the business-related curricular programs which are offered on a regular basis.

Human Resources Development

Human Resources Development (HRD) is a program which prepares the student for obtaining and maintaining gainful employment. This is done in a classroom setting where the student may upgrade the level of education, prepare for the High School Equivalency Examination, develop helpful self-knowledge, and become introduced to the world of work.

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Workshops, Seminars, and Conferences

Workshops, seminars, and conferences are planned and offered by Pitt Community College on a variety of topics in cooperation with civic groups, nonprofit organizations, or by special request from the citizens of Pitt County.

The workshops and seminars may carry CEU credit if arrangements have been made in advance with Pitt Community College and if participants meet necessary requirements for receiving credit.

The Visiting Artist Program

The Visiting Artist Program is a cooperative effort between the North Carolina Arts Council and the Department of Community Colleges. Pitt Community College is one of the many institutions

throughout the state which employs full-time artists representing a variety of different art forms.

The purpose of the program is to enhance the appreciation and cultivation of the arts within the College and the surrounding areas. This unique program presents to students, faculty, and the community at large an opportunity to experience first hand the work of creative and performing artists.

During the residency, the artist presents performances, lectures, demonstrations, and workshops as well as providing assistance to organizations such as civic clubs, public schools, arts councils, and church groups. The artist also organizes exchange programs with artists from other schools in the Visiting Artist Program in order to bring a variety of artistic experience to the College and community.

Compensatory Education

Compensatory Education is designed to enable adults with mental retardation to:

- Become more independent and self directed;
- Become more familiar with basic occupational skills;
- Acquire skills to meet and manage community, social, work and personal adult responsibilities.

Compensatory Education classes are available on the Pitt Community College campus, at Eastern Carolina Vocational Center, at the Pitt County Adult Developmental Activity Program, and at various locations in Pitt County. There is no charge for materials or instruction.



College Transfer



REQUIREMENTS FOR THE ASSOCIATE IN ARTS DEGREE

The Associate in Arts degree is awarded upon completion of at least 97 quarter hours of credit with an overall grade point average of 2.0 (C) or better, to include:

	Credit Hours
COMMUNICATIONS	11
Grammar and Composition, Lib 150	
HUMANITIES AND FINE ARTS	15
Literature, philosophy, religion foreign language, art, drama, speech, and music	
MATHEMATICS.....	5
SCIENCE	12
Courses, at least one of which is to include laboratory experience, will be chosen from areas such as astronomy, biology, chemistry, geology, and physics	
SOCIAL SCIENCE.....	20
History, anthropology, economics, geography, sociology, political science, and psychology	
HEALTH AND PHYSICAL EDUCATION.....	5
ORIENTATION COURSE	1
ORI 100	
*ELECTIVES	28
TOTAL CREDIT HOURS FOR DEGREE.....	97

*Electives should be selected on the basis of the student's major field of study and on the requirements of the institution to which the student intends to transfer.

PRE-BUSINESS ADMINISTRATION

Pre-Business Administration is designed for those students who wish to transfer to a senior college or university to pursue majors in the areas of accounting, banking, business administration, economics, finance, management, marketing, quantitative methods, or real estate. Degree plans may vary according to requirements of the senior institution.

PRE-BUSINESS ADMINISTRATION COURSE AND HOUR REQUIREMENTS

Title		C	L	CH
MAJOR COURSES:				
ACT	150	Principles of Accounting	3	2
ACT	151	Principles of Accounting	3	2
ACT	152	Principles of Accounting	3	2
BUS	166	Business Law I	3	0
BUS	167	Business Law II	3	0
ECO	150	Economics I	3	0
ECO	151	Economics II	3	0
ECO	152	Economics III	3	0
EDP	150	Introduction to Computers	5	0
ENG	150	Composition I	3	0
ENG	151	Composition II	3	0
ENG	152	Composition III	3	0
HEA	150	Personal And Community Health	3	0
LIB	150	Library Research Skills	2	0
MAT	150	College Algebra	5	0
MAT	180	Statistical Analysis	5	0
ORI	100	New Student Seminar	1	0
PSY	150	General Psychology I	4	0
SOC	150	Sociology	5	0
ELECTIVES				
ENG	204	Fine Arts or Humanities Elective	12	0
*		Oral Communication	3	0
*		Physical Education Elective	0	4
*		Science Elective	9	6
*		Social Science Elective	2	0
TOTAL CREDITS FOR AA DEGREE			89	16
				97

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If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 099, 100, 100A, 101, 101A, 102, 102A, 105;
MAT 099, 100R, 100, 101, 145

Students enrolled in this curriculum may select additional elective credits from approved college transfer courses and make course substitutions from such college transfer courses on a credit-for-credit basis upon approval by the student's department chairperson.

****RECOMMENDED ELECTIVES:**

Fine Arts: ART 160, 170; MUS 150; 160

Humanities: ENG 201, 250, 251, 260, 261; PHI 150;

REL 150, 160, 161

Physical Education: PED 150, 160-183, 196

Science: BIO 250, 251, 252; CHM 250, 251, 252, PHY 260, 261, 262

Social Science: ANT 150, 160; GEO 150; HIS 150, 151, 160, 161; POL 150;
PSY 151, 160, 170, 180; SOC 160, 170

For information pertaining to cooperative education credits, see that section of this catalog.

Students enrolled full-time and making satisfactory progress should complete this program in six quarters.



PRE-EDUCATION (ELEMENTARY)

Pre-Education (Elementary) is designed for students who plan to transfer to senior institutions and major in elementary education and then teach in elementary schools.

PRE-EDUCATION (ELEMENTARY) COURSE AND HOUR REQUIREMENTS

Title		C	L	CH
MAJOR COURSES:				
ANT	160	Societies Around The World	5	0
ART	170	Color and Design	5	0
ENG	150	Composition I	3	0
ENG	151	Composition II	3	0
ENG	152	Composition III	3	0
ENG	260	Amer. Lit. I	3	0
ENG	261	Amer. Lit. II	3	0
GEO	150	Intro To Geography	5	0
HEA	150	Personal and Community Health	3	0
HIS	150	American History I	5	0
HIS	151	American History II	5	0
HIS	160	World History to 1500	5	0
LIB	150	Library Research Skills	2	0
MAT	250	Basic Concepts of Math I	5	0
MAT	251	Basic Concepts of Math II	3	0
ORI	100	New Student Seminar	1	0
POL	150	Introduction to U.S. Govt.	5	0
PSY	150	Gen. Psy. I	4	0
PSY	170	Child Psychology	5	0
SPH	150	Voice & Diction	3	0
**ELECTIVES				
		General Electives	7	0
		Physical Education Electives	0	4
		Science Electives	9	6
		Select 2 Biology & 1 Chemistry or 1 Physics; or 2 Chemistry or Physics & 1 Biology		12
TOTALS CREDITS FOR AA DEGREE			92	10
				97
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If students, as result of placement tests, are found to be deficient in math and English skills, they will be required to take appropriate courses from the following list: ENG 091, 092, 093, 094, 099, 100, 100A, 101, 101A, 102, 102A, 105; MAT 099, 100R, 100, 101, 145.

*Elective Credits should be selected based on the student's prospective teaching field.

RECOMMENDED ELECTIVES:

General: ACT 150, 151, 152; ANT 150; BUS 165, 166, 167; ECO 150, 151, 152; EDP 150; HIS 161, MAT 102, 180; ORI 150; PSY 151, 160, 180; SOC 150, 160, 170.

Physical Education: PED 150, 160, 183, 196.

Science: BIO 250, 251, 252; CHM 250, 251, 252; PHY 260, 261, 262.

Students enrolled full-time and making satisfactory progress should complete the program in six quarters.

PRE-EDUCATION (SECONDARY)

Pre-Education (Secondary) is designed for students who plan to transfer to senior institutions and major in secondary education and then teach in high school. Students take the same courses as pre-liberal arts students, with elective hours chosen in the area of major interest.

PRE-EDUCATION (SECONDARY) COURSE AND HOUR REQUIREMENTS

Title		C	L	CH
MAJOR COURSES:				
*ENG	150	Composition I	3	0
ENG	151	Composition II	3	0
ENG	152	Composition III	3	0
HEA	150	Personal and Community Health	3	0
LIB	150	Library Research Skills	2	0
MAT	150	College Algebra	5	0
or MAT	250	Basic Concepts of Math I		
ORI	100	New Student Seminar	1	0
**ELECTIVES				
		Fine Arts	3	0
		General Electives	28	0
		Humanities	3	0
		Humanities or Fine Arts	9	0
		Physical Education	0	4
		Science	9	6
		Social Science	20	0
TOTALS CREDITS FOR AA DEGREE		92	10	97

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 099, 100, 100A, 101, 101A, 102, 102A, 105; MAT 099, 100R, 100, 101.

**Elective credits should be selected based on the student's prospective teaching field.

RECOMMENDED ELECTIVES:

Fine Arts: ART 160, 170; MUS 150; SPH 150, 160

Humanities: ENG 201, 250, 251, 260, 261; PHI 150; REL 150, 160, 161

Physical Education: PED 150, 160-184, 196

Science: BIO 250, 251, 252; CHM 250, 251, 252; PHY 260, 261, 262

Social Science: ANT 150, 160; ECO 150, 151, 152; GEO 150; HIS 150, 151, 160, 161;

POL 150; PSY 150, 151, 160, 170, 180; SOC 150, 160, 170

General: ACT 150, 151, 152; BUS 165, 166, 167; EDP 150, MAT 102, 180, 251; ORI 150.

For information pertaining to cooperative education credits, see that section of this catalog.

Students enrolled full-time and making satisfactory progress should complete this program in six quarters.

PRE-LIBERAL ARTS

The Pre-Liberal Arts curriculum is designed for students who intend to transfer to a senior college for their four-year degrees and for people who wish a liberal arts education ending in a two-year degree. Students take general college courses, including courses in English, math, biology, speech, health, physical education, and social science such as psychology, sociology, and history. Because the program is general, many students who have not decided on a major select pre-liberal arts. Adjustments can be made to meet the general education requirements of most colleges and universities.

PRE-LIBERAL ARTS COURSE AND HOUR REQUIREMENTS

Title		C	L	CH
MAJOR COURSES:				
*ENG 150	Composition I	3	0	3
ENG 151	Composition II	3	0	3
ENG 152	Composition III	3	0	3
HEA 150	Personal and Community Health	3	0	3
LIB 150	Library Research Skills	2	0	2
*MAT 150 or MAT 250	College Algebra	5	0	5
ORI 100	Basic Concepts of Math I	1	0	1
New Student Seminar				
ELECTIVES				
Fine Arts		3	0	3
General Electives		28	0	28
Humanities		3	0	3
Humanities or Fine Arts		9	0	9
Physical Education		0	4	2
Science		9	6	12
Social Science		20	0	20
TOTAL CREDITS FOR AA DEGREE		92	10	97

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 092, 092, 093, 094, 095, 099, 100, 100a, 101, 101a, 102, 102a, 105;
MAT 099, 100R, 100, 101, 145

*RECOMMENDED ELECTIVES:

Fine Arts: ART 160, 170; MUS 150; SPH 150, 160

Humanities: ENG 201, 250, 251, 260, 261; PHI 150; REL 150, 160, 161

Physical Education: PED 150, 160-184, 196

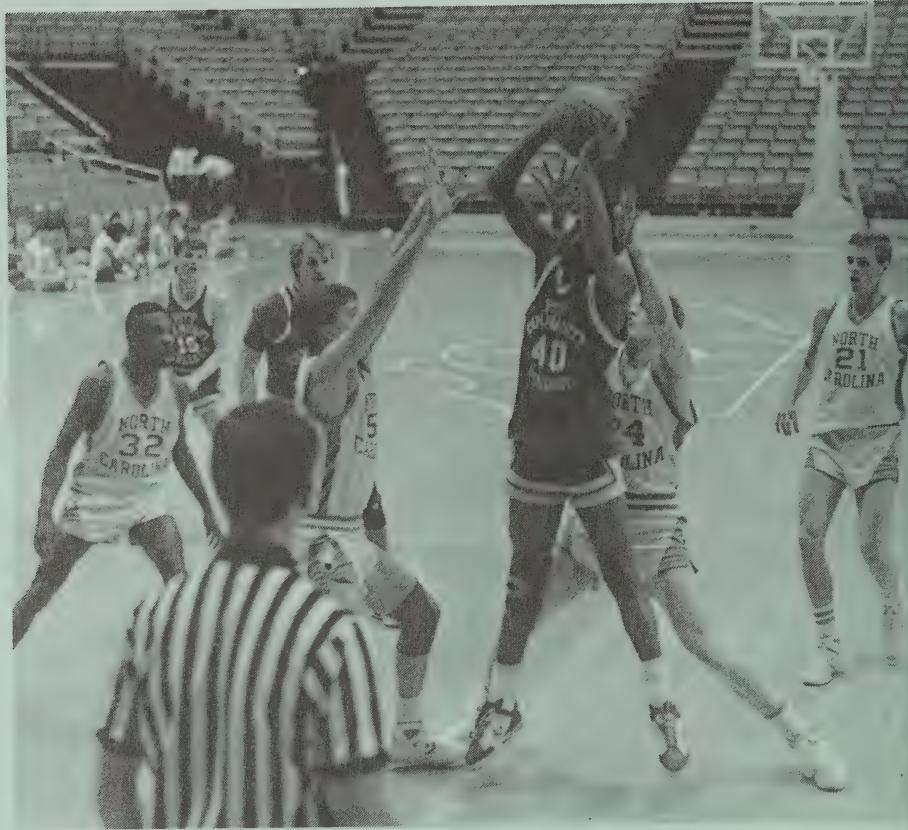
Science: BIO 250, 251, 252; CHM 250, 251, 252; PHY 260, 261, 262

Social Science: ANT 150, 160; ECO 150, 151, 152; GEO 150; HIS 150, 151, 160, 161;

POL 150; PSY 150, 151, 160, 170, 180; SOC 150, 160, 170

General: ACT 150, 151, 152; BUS 165, 166, 167; EDP 150; MAT 102, 180, 251; ORI 150.

Students enrolled full-time and making satisfactory progress should complete this program in eight quarters.

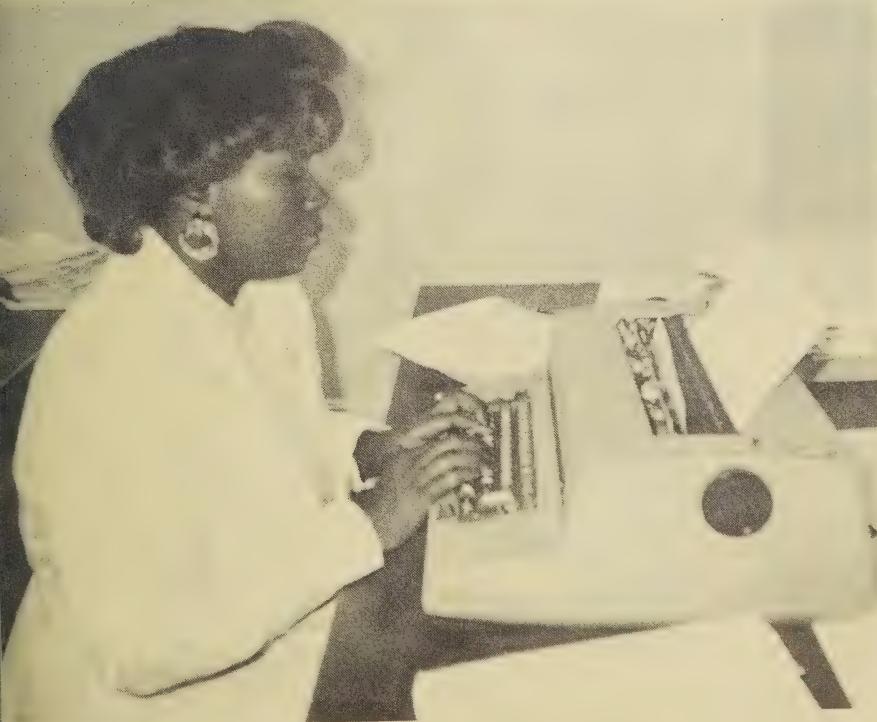


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Technical Education



ACCOUNTING

The purpose of the Accounting curriculum is to prepare the individual to enter the accounting profession through study of accounting principles, theories, and practices with related study in law, finance, management, and data processing operations.

The curriculum is designed to prepare the individual for entry-level accounting positions, such as junior accountant, bookkeeper, accounting clerk, cost clerk, payroll clerk, and related data processing occupations.

With experience and additional education, the individual will be able to advance to positions such as systems accountant, cost accountant, budget accountant, and property accountant.

ACCOUNTING COURSE AND HOUR REQUIREMENTS

Title		C	L	SH/CL	CH
MAJOR COURSES:					
ACT 150	Principles of Accounting	3	2	0	4
ACT 151	Principles of Accounting	3	2	0	4
ACT 152	Principles of Accounting	3	2	0	4
BUS 110	Electronic Calculator	2	2	0	3
BUS 165	Introduction to Business	5	0	0	5
BUS 166	Business Law I	3	0	0	3
BUS 167	Business Law II	3	0	0	3
BUS 222	Intermediate Accounting	5	2	0	6
BUS 223	Intermediate Accounting	5	2	0	6
BUS 225	Cost Accounting	3	2	0	4
BUS 229	Taxes	3	2	0	4
BUS 235	Business Management	3	0	0	3
BUS 269	Auditing	5	0	0	5
BUS 270	Computer Appl. of Acct.	1	4	0	3
TOTALS		47	20	0	57

RELATED COURSES:

78	BUS 102	Beginning Keyboarding	2	0	3	3
	BUS 123	Business Finance	3	0	0	3
	BUS 134	Professional Development	3	0	0	3
	BUS 170	Intro. To Microcomputer Application	2	2	0	3
	BUS 214	Business Seminar	2	0	0	2
	BUS 226	Payroll Accounting	3	2	0	4
	ECO 150	Economics I	3	0	0	3
	ECO 151	Economics II	3	0	0	3
	EDP 112	Basic I	2	2	0	3
	*MAT 110	Business Mathematics	5	0	0	5
	TOTALS		28	6	3	32

GENERAL EDUCATION:

ENG 101	Grammar and Composition I	3	0	0	3
ENG 102	Grammar and Composition II	3	0	0	3
ENG 204	Oral Communications	3	0	0	3
**	Social Science Elective	3	0	0	3
MAT 101	Algebra I	5	0	0	5
ORI 100	New Student Seminar	1	0	0	1
TOTALS		21	0	0	21

**ELECTIVES	6	0	0	6
WORK EXPERIENCE:				
+COE 101B Cooperative Education	0	0	20	2
TOTAL CREDITS FOR AAS DEGREE	102	26	23	118

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 095, 099, 100, 100A, 101A, 102A; MAT 099, 100R, 100

***Recommended Social Science Electives:**

ANT 150, 160; GEO 150; HIS 150, 151, 160, 161; POL 102, 103, 150; PSY 102, 104, 150, 206; SOC 102, 103, 150, 160, 170; SSC 101

***Electives:**

Students enrolled in this curriculum may select elective credits and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

+ Student must have completed 100 required hours with 2.0 grade point average. BUS 214 and Cooperative Education Field Experience are to be taken concurrently.

+ Cooperative Education Work Experience: Up to 6 credit hours may be taken in lieu of electives.

Students enrolled full-time and making satisfactory progress should complete this program in seven quarters.

ADMINISTRATIVE OFFICE TECHNOLOGY

This curriculum prepares individuals to perform secretarial and administrative support duties in a variety of offices including those offices with computerized, automated functions.

ADMINISTRATIVE OFFICE TECHNOLOGY COURSE AND HOUR REQUIREMENTS

Title		C	L	SH/CL	CH
MAJOR COURSES:					
BUS	102	Beginning Keyboarding	2	0	3
BUS	103	Intermed. Keyboarding	2	0	3
BUS	112	Filing	3	0	3
BUS	113	Machine Transcription I	5	0	0
BUS	114	Machine Transcription II	5	0	0
BUS	117	Electronic Calculator: Sec.	2	0	3
BUS	134	Professional Develop.	3	0	0
BUS	141	Database Management	2	2	0
BUS	165	Intro. To Business	2	2	0
BUS	171	Word Processing	2	2	0
BUS	172	Advanced Word Process.	2	2	0
BUS	187	Intro. to Transcription	3	0	0
BUS	213	Machine Transcript. III	5	0	0
BUS	216	Office Procedures	5	0	0
BUS	259	Office Simulation	2	0	3
BUS	271	Office Management	3	0	0
TOTALS			53	8	12
RELATED COURSES:					
ACT	150	Principles of Accounting	3	2	0
ACT	151	Principles of Accounting	3	2	0
BUS	140	Spreadsheet Applications	2	2	0
BUS	166	Business Law I	3	0	0
CAT	115	PageMaker For Business	2	2	0
+ ECO	108	Consumer Economics	3	0	0
EDP	114	Introduction to Computer Concepts	3	0	0
ENG	106	Spelling Techniques	3	0	0
ENG	206	Bus. Communications	3	0	0
+ MAT	110	Business Mathematics	5	0	0
TOTALS			30	8	0
GENERAL EDUCATION:					
*ENG	101S	Grammar	5	0	0
ENG	202	Grammar and Comp. II	3	0	0
ENG	204	Oral Communications	3	0	0
ORI	100	New Student Seminar	1	0	0
SOC	100	Job Search and Career Planning	3	0	0
		**Social Science Elective	5	0	0
TOTALS			20	0	0
COE	101B	Cooperative Education	3	0	3

***ELECTIVES	3	0	0	3
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TOTAL CREDITS FOR AAS DEGREE	106	16	32	120
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If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091, 092, 093, 094, 095, 099, 100, 100A, 101A, 102A; MAT 099, 100R.

Students enrolled in this curriculum may select elective credits and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

Recommended Social Science Electives:

PSY 102, 103, 104, 115, 116, 120, 150, 151, 170, 180, 206, 223, 228, 230;
SOC 101, 102, 103, 150, 160, 170, 221.

Cooperative Education Work Experience: Up to three hours may be taken in lieu of courses listed above plus.

Students enrolled full-time and making satisfactory progress should complete this program in seven quarters.

AGRICULTURAL BUSINESS TECHNOLOGY

The Agricultural Business curriculum is designed to help students acquire knowledge, understanding and abilities in the field of agricultural business, including agricultural production. Students learn the principles of organization and management in agricultural business and industry, the application of these principles of agricultural production and the basic principles of our economics system marketing, credit, price concepts, governmental policies and programs relating to agriculture. Students also gain an understanding of the agricultural sciences most essential to the production and marketing of agricultural products.

Graduates should qualify for a variety of jobs in agricultural business and industry; salesperson or store manager in farm supply stores, agricultural field service person, salesperson, demonstrator or plant manager of food and food companies, farm products inspector, salesperson or office manager of farm products marketing firms and farm manager.

AGRICULTURAL BUSINESS TECHNOLOGY COURSE AND HOUR REQUIREMENT

	Title		C	L	SH/CL	CH
MAJOR COURSES:						
AGR 100	Introduction to Agriculture	1	0	0		1
AGR 119	Techniques of Welding	2	3	0		3
AGR 125	Animal Science	5	2	0		6
AGR 165	Crop Science	3	0	0		3
AGR 170	Plant Science	5	2	0		6
AGR 185	Soil Science	5	2	0		6
AGR 203	Pesticide and Fertilizer Application	3	2	0		4
AGR 204	Agri Economics and Farm Records	3	2	0		4
AGR 205	Agricultural Marketing	3	2	0		4
AGR 225	Agricultural Pollution Control	3	2	0		4
AGR 245	Crop Insects	3	2	0		4
AGR 247	Pesticide Use in Home and Community	3	2	0		4
AGR 255	Landscaping Principles and Practices	3	2	0		4
AGR 278	Weed Identification and Control	3	2	0		4
AGR 290	Soil and Water Conservation	3	2	0		4
	TOTALS	48	27	0		61

Or six credit hours to be selected from: AGR 128, 167, 254, 260, 272, 273, 296.

RELATED COURSES:

ACT 150	Principles of Accounting	3	2	0		4
BUS 102 or	Beginning Keyboarding	2	0	3		3
BUS 103	Intermediate Keyboarding	2	0	0		3
BUS 170	Intro. to Microcomputer Applications	2	2	0		3
BUS 235	Business Management	3	0	0		3
BUS 272	Principles of Supervision	3	0	0		3
CHM 101	Chemistry	4	2	0		5
MAT 110	Business Mathematics	5	0	0		5
	TOTALS	22	6	3		26

GENERAL EDUCATION:

ENG	101	Grammar & Comp. I	3	0	0	3
ENG	102	Grammar & Comp. II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
	**Social Science Elective		3	0	0	3
	**Social Science Elective		3	0	0	3
	TOTALS		19	0	0	19
	Electives***		6	0	0	6

WORK EXPERIENCE: Up to 6 credit hours may be taken under free electives.

TOTAL CREDITS FOR AAS DEGREE **95** **36** **0** **112**

*If students, as a result of placement tests or grades, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091, 092, 093, 100G, 100A, 102A; MAT 099, 100R.

***Recommended Social Science Electives:**

ANT 150, 160; GEO 150; HIS 150, 151, 160, 161; POL 102, 103, 150; PSY 102, 104, 150, 206;
SOC 102, 103, 150, 160, 170; SSC 101.

***Electives:**

Students enrolled in this curriculum may select elective credits and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

For information pertaining to cooperative education, see cooperative education section in this catalog.

Students enrolled full-time and making satisfactory progress should complete the program in six quarters.

AGRICULTURAL SCIENCE

The Agricultural Science curriculum is designed to prepare students in the scientific, technical and managerial concepts of farm and agricultural enterprise operations.

The program emphasizes the management and operation of farms. Courses are included to prepare the student to be able to do most repairs and installation of buildings and equipment, as well as to undertake electrical, construction, plumbing and irrigation requirements pertaining to the farm operation. Additional courses include those which prepare for planning, financing, marketing, and long-range forecasting of the farm enterprise.

The broad concepts taught in this curriculum prepare students for jobs in farm and agriculture-related enterprises. Some of the jobs graduates are qualified for are: farm machine operator, farm worker, farm equipment mechanic, farm manager or supervisor and sales representative for agricultural equipment and supplies.

AGRICULTURAL SCIENCE COURSE AND HOUR REQUIREMENTS

Title		C	L	SH/CL	CH
MAJOR COURSES:					
AGR 105	Pasture and Forage Crops	3	0	0	3
AGR 107	Farm Enterprise Management	3	0	0	3
AGR 112	Small Engine Repair	2	2	0	3
AGR 116	Farm Welding	2	2	0	3
AGR 121	Crop Production	3	0	0	3
AGR 127	Animal Nutrition	3	0	0	3
AGR 135	Agricultural Law	3	0	0	3
AGR 136	Agricultural Mathematics	3	0	0	3
AGR 150	General Horticulture	3	0	0	3
AGR 154	Swine Production	3	0	0	3
AGR 187	Fertilizers and Lime	3	0	0	3
AGR 190	Soils and Soil Fertility	2	2	0	3
AGR 198	Practical Application of Agricultural Chemicals	2	2	0	3
AGR 201	Agriculture Chemicals	3	0	0	3
AGR 206	Marketing Farm Products	3	0	0	3
AGR 207	Poultry Enterprises	3	0	0	3
AGR 218	Agricultural Mechanization	3	0	0	3
AGR 222	Farm Electrification	2	2	0	3
AGR 224	Agricultural Pollution Prevention and Management	2	2	0	3
AGR 227	Beef Production	3	0	0	3
AGR 230	Plant Diseases	3	0	0	3
AGR 235	Animal Diseases	3	0	0	3
AGR 240	Insects of Agronomic Crops	2	2	0	3
AGR 254	Plant Propagation	3	0	0	3
AGR 260	Residential Landscaping	2	2	0	3
AGR 272	Tobacco Production	3	0	0	3
AGR 275	Introduction to Weed Identification and Control	2	2	0	3
AGR 280	Farm Forestry Management	2	2	0	3
AGR 285	Introduction to Soil and Water Conservation	3	0	0	3
AGR 297	Agricultural Policy and Programs	3	0	0	3
TOTALS		80	20	0	90

GENERAL EDUCATION:

ENG	101	Composition and Grammar I	3	0	0	3
ENG	102	Composition and Grammar II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
		Social Science Elective	3	0	0	3
		Social Science Elective	3	0	0	3
		TOTALS	19	0	0	19

TOTAL CREDITS FOR AAS DEGREE **99** **20** **0** **109**

If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 100G, 100A, 101A, 102A; MAT 099, 100R

Upon approval of the department chairperson, the agricultural science student may make course substitutions on a credit-for-credit basis from the agricultural science courses.

Recommended Social Science Electives:

PSY 102, 206; SOC 102, 103; SSC 101

WORK EXPERIENCE: Up to 11 credit hours may be taken in lieu of approved courses.

Students enrolled in the evening and making satisfactory progress should complete this program in fifteen quarters.

ARCHITECTURAL DRAFTING TECHNOLOGY

The Architectural Drafting Technology curriculum provides individuals with knowledge and skills that will lead to employment and advancement in the field of architectural technology. Technical courses are included which will enable the graduate to advance into related areas of work as job experience is obtained or to continue toward an advanced degree in an associated field of technology.

Architectural technicians translate the architect's design sketches into complete and accurate plans and drawings for construction purposes. The technician will be involved in work requiring a knowledge of drafting, construction materials, mechanical and structural systems, estimating, building codes, and specifications.

Initial employment opportunities exist with architectural and engineering firms, private utilities, contractors, and municipal governments.

ARCHITECTURAL DRAFTING TECHNOLOGY COURSE AND HOUR REQUIREMENTS

Title		C	L	SH/CL	CH
MAJOR COURSES:					
AHR	106	Architectural Mechanical Equipment	3	0	3
**ARC	106	Architectural Drafting	2	0	6
- ARC	107	Architectural Drafting	2	0	6
ARC	108	Architectural Drafting	0	0	9
ARC	201	Architectural Design	3	0	9
ARC	202	Environmental Design	2	0	3
ARC	220	Architectural Drafting	2	0	9
ARC	221	Architectural Drafting	2	0	9
ARC	222	Architectural Drafting	2	0	9
+ ARC	233	Office Practice Seminar	2	0	0
CIV	101	Surveying	2	0	6
CIV	105	Materials and Methods	3	0	4
CIV	114	Statics	5	0	0
CIV	216	Strength of Materials	3	2	4
DFT	230	Structural Drafting	3	0	6
DFT	235	Codes, Specifications and Contract Documents	3	0	3
DFT	236	Construction Estimating and Field Inspecting	3	0	3
TOTALS		42	2	84	71

RELATED COURSES:

*MAT	101	Algebra I	5	0	0	5
MAT	102	Trigonometry	5	0	0	5
MAT	103	Algebra II	5	0	0	5
PHY	101	Physics	4	2	0	5
PHY	102	Physics	4	2	0	5
PHY	103	Physics	4	2	0	5
TOTALS		27	6	0	30	

GENERAL EDUCATION:

			C	L	SH/CL	CH
ENG	101	Grammar and Composition I	3	0	0	3
ENG	102	Grammar and Composition II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
PSY	102	General Psychology	3	0	0	3
SSC	101	Intro. to Social Sciences	3	0	0	3
		TOTALS	19	0	0	19
		FREE ELECTIVES	3	0	0	3

TOTAL CREDITS FOR AAS DEGREE: **91** **8** **84** **123**

If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091, 092, 093, 094, 095, 099, 100, 100A, 101A, 102A; MAT 100R, 100.

Student enrolled in this curriculum may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

Cooperative Education Work Experience: Up to 3 credit hours may be taken in lieu of approved courses. In lieu of the summer quarter courses, students with department chairperson's approval, may work as a cooperative education intern full time in a related area of employment. (Cooperative Education courses do not qualify for veteran's benefits.)

Students enrolled full-time and making satisfactory progress should complete this program in seven quarters.

ARC 104 and ARC 105 are equivalent to ARC 106.

BANKING AND FINANCE

The purposes of the Banking and Finance curriculum are to prepare the individual to enter the banking and finance industries, to provide an educational program for the banking employees wanting to receive the American Institute of Banking certificate, and to provide an educational program to upgrade or retrain individuals presently employed in the banking or finance industry.

These purposes will be fulfilled through study in areas such as banking and finance principles, theories and practices; teller operations; lending and collections procedures, financial analysis; and marketing and public relations.

This curriculum will provide the opportunity for an individual to enter a variety of banking or finance jobs in retail banks, commercial banks, government lending agencies, mortgage banks, and credit companies.

BANKING AND FINANCE COURSE AND HOUR REQUIREMENTS

Title		C	L	SH/CL	CH
MAJOR COURSES:					
ACT 150	Principles of Accounting	3	2	0	4
ACT 151	Principles of Accounting	3	2	0	4
AIB 202	Principles of Bank Operation	4	0	0	4
AIB 205	Bank Management	4	0	0	4
AIB 209	Installment Credit	4	0	0	4
AIB 210	Money and Banking	4	0	0	4
AIB 215	Branch Management	2	4	0	4
AIB 219	Credit Administration	4	0	0	4
AIB 220	Bank Cards	3	0	0	3
+ AIB 230	Introduction to Commercial Lending	4	0	0	4
AIB 231	Savings and Time Deposit Banking	4	0	0	4
+ AIB 232	Agricultural Finance	4	0	0	4
+ AIB 233	Analyzing Financial Statements	4	0	0	4
AIB 239	Bank Public Relations and Marketing	4	0	0	4
AIB 250	Real Estate Finance	4	0	0	4
AIB 259	Law and Banking	4	0	0	4
TOTALS		59	8	0	63

RELATED COURSES:

BUS 102	Beginning Keyboarding	2	0	3	3
BUS 110	Electronic Calculator	2	2	0	3
BUS 165	Introduction to Business	5	0	0	5
BUS 235	Business Management	3	0	0	3
BUS 272	Principles of Supervision	3	0	0	3
ECO 150	Economics I	3	0	0	3
ECO 151	Economics II	3	0	0	3
EDP 112	BASIC I	2	2	0	3
ENG 206	Business Communications	3	0	0	3
*MAT 110	Business Mathematics	5	0	0	5
TOTALS		31	4	3	34

GENERAL EDUCATION:

			C	L	SH/CL	CH
*ENG	101	Grammar and Composition I	3	0	0	3
ENG	102	Grammar and Composition II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
PSY	206	Applied Psychology	3	0	0	3
SOC	102	Principles of Sociology	3	0	0	3
+		Business Elective	4	0	0	4
		TOTALS	23	0	0	23

TOTAL CREDITS FOR AAS DEGREE: **113** **12** **3** **120**

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091, 092, 093, 094, 095, 099, 100, 100A, 101A, 102A; MAT 099, 100R.

Students enrolled in this curriculum may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

***Recommended Business Electives:**

BUS 103, 112, 134, 140, 141, 170, 171, 219, 222, 223, 225, 231, 290A, 290B, 290C

Cooperative Education Work Experience: Up to 8 credit hours may be taken in lieu of approved courses as indicated by a plus.

Currently, this curriculum is offered only in the evening.

+ AIB 213 will substitute for AIB 230, AIB 232, or AIB 233

+ AIB 228 will substitute for AIB 230, AIB 232, or AIB 233

+ AIB 229 will substitute for AIB 230, AIB 232, or AIB 233

The following courses may be substituted for AIB courses on a credit for credit basis: BUS 136, 137, 138, 139, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 153, 267

BUSINESS ADMINISTRATION

The Business Administration curriculum is designed to prepare an individual for entry into middle-management occupations in various businesses and industries. The curriculum provides an overview of the business and industrial world, its organization and management.

This program is designed to develop competency in understanding the principles of organization and management in business operations, utilizing modern techniques to make decisions, understanding the economy through study and analysis of the role of production and marketing, communicating orally and in writing, and interpersonal relationships.

Through these skills and through development of personal competencies and qualities, the individual will be able to function effectively in middle management activities in business or industry.

BUSINESS ADMINISTRATION COURSE AND HOUR REQUIREMENTS

Title			C	L	SH/CL	CH
MAJOR COURSES:						
ACT	150	Principles of Accounting	3	2	0	4
ACT	151	Principles of Accounting	3	2	0	4
ACT	152	Principles of Accounting	3	2	0	4
BUS	110	Electronic Calculator	2	2	0	3
BUS	123	Business Finance	3	0	0	3
BUS	165	Introduction to Business	5	0	0	5
BUS	166	Business Law I	3	0	0	3
BUS	167	Business Law II	3	0	0	3
BUS	226	Payroll Accounting	3	2	0	4
BUS	229	Taxes	3	2	0	4
BUS	232	Sales Development	3	0	0	3
+ BUS	235	Business Management	3	0	0	3
BUS	239	Marketing	5	0	0	5
BUS	243	Advertising	3	2	0	4
BUS	271	Office Management	3	0	0	3
+ BUS	272	Principles of Supervision	3	0	0	3
*MAT	110	Business Mathematics	5	0	0	5
TOTALS			56	14	0	63

RELATED COURSES:

BUS	102	Beginning Keyboarding	2	0	3	3
BUS	140	Spreadsheet Applications	2	2	0	3
BUS	170	Intro To Microcomputer Applications	2	2	0	3
BUS	231	Computerized Inventory Procedures	2	2	0	3
ECO	108	Consumer Economics	3	0	0	3
ECO	150	Economics I	3	0	0	3
ECO	151	Economics II	3	0	0	3
ENG	206	Business Communications	3	0	0	3
**		Business Electives	9	0	0	9
TOTALS			29	6	3	33

GENERAL EDUCATION:

			C	L	SH/CL	CH
*ENG	101	Grammar and Composition I	3	0	0	3
ENG	102	Grammar and Composition II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
SOC	100	Job Search and Career Planning	3	0	0	3
***		Social Science Elective	3	0	0	3
		TOTALS	19	0	0	19
		Free Electives	4	0	0	4

TOTAL CREDITS FOR AAS DEGREE: **108** **20** **3** **119**

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091, 092, 093, 094, 095, 099, 100, 100A, 101A, 102A; MAT 099, 100R.

Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

***Recommended Business Electives:**

BUS 102, 112, 134, 141, 171, 219, 222, 223, 225,
EDP 115; ENG 106; INS 215, 216; RLS 101, 102, 103, 104

***Recommended Social Science Electives:**

ANT 150, 160; GEO 150; HIS 150, 151, 160, 161; POL 102, 103, 150; PSY 102, 104, 150, 206;
SOC 102, 103, 150, 160, 170; SSC 101

+ Cooperative Education Work Experience: Up to six hours may be taken in lieu of courses listed as noted by plus.

Students enrolled full-time and making satisfactory progress should complete this program in seven quarters.

BUSINESS COMPUTER PROGRAMMING

The primary objective of the Business Computer Programming curriculum is to prepare individuals for gainful employment as computer programmers. The objective is fulfilled through study and application in areas such as computer and systems theories and concepts, data processing techniques; business operations; logic; flow charting; programming procedures and languages; and types, uses and operation of equipment.

Entry-level jobs as computer programmer and computer programmer trainee are available. With experience and additional education, the individual may enter jobs such as data processing manager, computer programmer manager, systems analyst, and systems manager.

BUSINESS COMPUTER PROGRAMMING COURSE AND HOUR REQUIREMENTS

Title		C	L	SH/CL	CH
MAJOR COURSES:					
EDP 112	BASIC I	2	2	0	3
EDP 113	BASIC II	2	2	0	4
EDP 114	Intro. To Computer Concepts	3	0	0	3
EDP 118	COBOL I	2	4	0	4
EDP 119	COBOL II	2	4	0	4
EDP 145	Programming With Database Software	2	2	0	3
EDP 146	Advanced Programming With Database Software	2	4	0	4
EDP 147	Personal Computer Operating System	3	2	0	4
EDP 211	Applications I	2	4	0	4
EDP 212	Applications II	2	4	0	4
EDP 214	Computer Systems I	4	0	0	4
EDP 223	Introduction to RPG II	2	4	0	4
EDP 224	RPG II	2	4	0	4
EDP 233	Customer Information Computer Systems	2	4	0	4
EDP 234	Interactive Workstation Programming	2	4	0	4
EDP 240	Data Processing Practice I	0	10	0	1
EDP 241	Data Processing Practice II	0	10	0	1
MAT 111	Computer Mathematics	5	0	0	5
TOTALS		39	66	0	64

RELATED COURSES:

ACT 150	Principles of Accounting	3	2	0	4
ACT 151	Principles of Accounting	3	2	0	4
ACT 152	Principles of Accounting	3	2	0	4
BUS 166	Business Law I	3	0	0	3
BUS 225	Cost Accounting	3	2	0	4
BUS 235	Business Management	3	0	0	3
MAT 110	Business Mathematics	5	0	0	5
TOTALS		23	8	0	27

GENERAL EDUCATION:

			C	L	SH/CL	CH
ENG	101	Grammar and Composition I	3	0	0	3
ENG	102	Grammar and Composition II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
Or ENG	206	Business Communications				
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
	**Psychology Elective		3	0	0	3
	**Sociology Elective		3	0	0	3
	TOTALS		19	0	0	19
	***Free Electives		6	0	0	6

TOTAL CREDITS FOR AAS DEGREE: **87** **74** **0** **116**

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 095, 099, 100, 100A, 101A, 102A; MAT 099, 100R

Students enrolled in this curriculum may select elective credits from the list of recommended electives and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

*Recommended Social Science Electives: PSY 102, 104, 150, 151, 206; SOC 102, 103, 150

*Recommended Free Electives: EDP 101, 115, 130, 140, 148, 150, 230, 231.

Cooperative Education Work Experience: Up to 6 credit hours may be taken in lieu of approved courses.

Students enrolled full-time and making satisfactory progress should complete this program in six quarters.

COMMERCIAL ART AND GRAPHIC DESIGN

Students in the Commercial Art and Graphic Design curriculum study advertising, illustration, layout, typography, design, photography, graphic communication, and production.

Commercial artists and advertising designers create and design layouts and artwork for print and audiovisual media. They may design and prepare letterheads, brochures, illustrations, and art for publication; produce package design; and prepare lettering, type, and for print and audiovisual media.

Job opportunities for graduates of this program may be in art and design studios, advertising agencies, department stores, industrial advertising departments, government agencies, television and film studios, and the printing and publishing industry.

COMMERCIAL ART AND GRAPHIC DESIGN COURSE AND HOUR REQUIREMENTS

Title		C	L	SH/CL	CH
MAJOR COURSES:					
CAT 102	Drawing I	2	4	0	4
CAT 103	Drawing II	2	4	0	4
CAT 104	Drawing III	2	4	0	4
CAT 112	Typography I	2	4	0	4
CAT 113	Typography II	2	4	0	4
CAT 114	Computer I	2	4	0	4
CAT 116	Computer II	2	4	0	4
CAT 117	Computer III	2	4	0	4
CAT 118	Computer IV	2	4	0	4
CAT 119	History of Design	2	0	0	2
CAT 120	Illustration I	2	4	0	4
CAT 121	Design I	2	4	0	4
CAT 122	Graphic Design I	2	4	0	4
+CAT 123	Graphic Design II	2	4	0	4
CAT 210	Production	2	4	0	4
CAT 212	Illustration II	2	4	0	4
CAT 213	Illustration III	2	4	0	4
CAT 214	Typography III	2	4	0	4
CAT 224	Graphic Design III	2	4	0	4
CAT 225	Graphic Design IV	2	4	0	4
CAT 226	Graphic Design V	2	4	0	4
CAT 235	Portfolio Development	2	4	0	4
TOTALS		44	84	0	86
RELATED COURSES:					
BUS &MAT 102	Beginning Keyboarding	2	0	3	3
	Fundamentals of Mathematics	5	0	0	5
**PHO 116	Photography	2	4	0	4
**PHO 2127	Photography	2	4	0	4
TOTALS		11	8	3	16

GENERAL EDUCATION:

			C	L	SH/CL	CH
*ENG	101	Grammar and Composition I	3	0	0	3
ENG	102	Grammar and Composition II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
***		Social Science Elective	6	0	0	6
		TOTALS	19	0	0	19
		TOTAL CREDITS FOR AAS DEGREE:	74	92	3	121

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091, 092, 093, 094, 095, 099, 100, 100A, 101A, 102A; MAT 099, 100R.

Students enrolled in this curriculum may select credits from the list of recommended electives and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

****Recommended Social Science Electives:**

**May take any 6 hours of social science.

+Cooperative Education Work Experience: Up to 4 credit hours may be taken in lieu of approved courses.

*PHO 114 and 115 are equivalent to PHO 116. PHO 215 and 216 are equivalent to PHO 217.

Students enrolled full-time and making satisfactory progress should complete this program in six quarters.

CRIMINAL JUSTICE: CORRECTIONS

The Criminal Justice Technology curriculum is designed so that it may be a multifaceted program of study. It may consist of study options in corrections, law enforcement, and security services.

The curriculum offers a core of courses providing basic knowledge, skills, and attitudes in correctional services, law enforcement services, and security services. It includes subjects such as interpersonal communications, law, psychology, and sociology.

In addition to core subjects, the correctional services option provides an opportunity to study subjects such as confinement facility administration, correction law, counseling, probation-parole services, and rehabilitation options. Similarly, the law enforcement option provides an opportunity to study criminal criminal behavior, criminal-investigation, patrol operation, traffic management, and other aspects of law enforcement administration and operations. The security services option provides an opportunity to study accident prevention and safety management, common carrier protection, fire prevention, private security, industrial security, retail security, security systems, and surveillance.

Job opportunities are available with federal, state, county and municipal governments. In addition, knowledge, skills and attitudes acquired in this course of study qualifies one for job opportunities with private enterprise in such areas as industrial, retail, and private security.

CRIMINAL JUSTICE: CORRECTIONS COURSE AND HOUR REQUIREMENTS

	Title		C	L	SH/CL	CH
MAJOR COURSES:						
	+ **CJC	101 Introduction to Criminal Justice	5	0	0	5
	CJC	109 Interviewing	3	0	0	3
	CJC	112 Motor Vehicle Laws	3	0	0	3
	CJC	113 Corrections Law	3	0	0	3
	CJC	115 Criminal Law I	3	0	0	3
	CJC	116 Criminal Law II	3	0	0	3
	CJC	125 Criminal Procedures and North Carolina Court System	3	0	0	3
96	CJC	205 Evidence	3	0	0	3
	CSC	201 Marriage and the Family	3	0	0	3
	CSC	202 Introduction to Recreation Services	2	2	0	3
	CSC	203 Survey of Corrections	3	0	0	3
	CSC	207 Confinement Facilities Administration	3	0	0	3
	CSC	213 Dynamics of Substance Abuse	3	0	0	3
	CSC	224 Rehabilitation Techniques	3	0	0	3
	CSC	226 Administration and Interpretation of Tests	3	0	0	3
	CSC	229 Career Information	2	2	0	3
	CSC	234 Community Based Corrections	3	0	0	3
	PSC	110 Juvenile Delinquency	5	0	0	5
	+ PSC	202 Community Relations	2	0	0	2
	PSC	213 Identification Techniques	3	2	0	4
	PSC	240 Firearms & Defensive Tactics	2	2	0	3
	TOTALS		63	8	0	67

RELATED COURSES:

CHM	101	Chemistry	4	2	0	5
CJC	102	Legal Research I	1	2	0	2
HEA	110	First Aid and Medical Terminology	2	2	0	3
*MAT	101	Algebra I	5	0	0	5
POL	102	National Government	3	0	0	3
POL	103	State and Local Government	3	0	0	3
PSY	103	Adolescent Psychology	3	0	0	3
PSY	228	Deviant Behavior	3	0	0	3
		TOTALS	24	6	0	27

GENERAL EDUCATION:

*ENG	101	Grammar and Composition I	3	0	0	3
ENG	102	Grammar and Composition II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
PSY	102	General Psychology	3	0	0	3
SOC	102	Principles of Sociology	3	0	0	3
		TOTALS:	19	0	0	19
		+ FREE ELECTIVES	6	0	0	6

TOTAL CREDITS FOR AAS DEGREE: **112** **14** **0** **119**

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 095, 099, 100, 100A, 101A, 102A, MAT 099, 100R, 100.

Students enrolled in this curriculum must select six hours of elective credits.

**CJC 151, 152, 153, 154, 155, and 156 totaling 6 quarter hours of credit may be substituted for CJC 101 Introduction to Criminal Justice, or may be taken as electives.

+ Cooperative Education work experience: Up to 8 credit hours may be taken in lieu of approved courses as indicated by a plus.

Students enrolled full-time and making satisfactory progress should complete this program in six quarters.

CRIMINAL JUSTICE: LAW ENFORCEMENT

The Law Enforcement Technology curriculum prepares individuals for a career in the law enforcement services occupations field and other allied occupations. Law enforcement occupations require a thorough understanding of criminal behavior, criminal investigation, interpersonal communications, law, patrol operations, psychology, sociology, traffic management, and other aspects of law enforcement administration and operations.

Job opportunities are available with federal, state, county, and municipal governments. In addition, knowledge, skills and abilities acquired in this course of study qualifies one for job opportunities with private enterprise in such areas as industrial, retail, and private security.

CRIMINAL JUSTICE: LAW ENFORCEMENT COURSE AND HOUR REQUIREMENTS

Title		C	L	SH/CL	CH
MAJOR COURSES:					
**CJC	101	Introduction to Criminal Justice	5	0	0
CJC	109	Interviewing	3	0	0
CJC	112	Motor Vehicle Law	3	0	0
CJC	113	Corrections Law	3	0	0
CJC	115	Criminal Law I	3	0	0
CJC	116	Criminal Law II	3	0	0
CJC	125	Criminal Procedures and North Carolina Court System	3	0	0
CJC	204	Evidence Photography	3	0	3
CJC	205	Evidence	3	0	0
CJC	210	Techniques of Investigation	4	2	0
CJC	211	Criminalistics	4	2	0
CJC	235	Forensic Science	3	2	0
PSC	110	Juvenile Delinquency	5	0	0
PSC	201	Patrol Procedures	4	2	0
PSC	202	Community Relations	2	0	0
PSC	213	Identification Techniques	3	2	0
PSC	220	Police Administration	3	0	0
PSC	240	Firearms and Defensive Tactics	2	2	0
PSC	241	Police Conditioning	0	2	0
TOTALS		59	14	3	67

98

RELATED COURSES:

CHM	101	Chemistry	4	2	0	5
CJC	102	Legal Research I	1	2	0	2
CSC	203	Survey of Corrections	3	0	0	3
CSC	213	Dynamics of Substance Abuse	3	0	0	3
HEA	110	First Aid and Medical Terminology	2	2	0	3
*MAT	101	Algebra I	5	0	0	5
POL	102	National Government	3	0	0	3
POL	103	State and Local Government	3	0	0	3
PSY	228	Deviant Behavior	3	0	0	3
TOTALS		27	6	0	30	

GENERAL EDUCATION			C	L	SH/CL	CH
*ENG	101	Grammar and Composition I	3	0	0	3
ENG	102	Grammar and Composition II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
PSY	102	General Psychology	3	0	0	3
SOC	102	Principles of Sociology	3	0	0	3
TOTALS			19	0	0	19
+ FREE ELECTIVES			5	0	0	5
TOTAL CREDITS FOR AAS DEGREE:			110	20	3	121

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 095, 099, 100, 100A, 101A, 102A; MAT 099, 100R, 100.

+ Students enrolled in this curriculum must select five elective credits.

**CJC 151, 152, 153, 154, 155, and 156 totaling 6 quarter hours of credit may be substituted for CJC 101 Introduction to Criminal Justice, or taken as electives.

+ Cooperative Education Work Experience: Up to 5 credit hours may be taken in lieu of approved courses as indicated by a plus.

Students enrolled full-time and making satisfactory progress should complete this program in six quarters.

EARLY CHILDHOOD ASSOCIATE

The Early Childhood Associate curriculum prepares individuals to work with programs and/or centers concerned with the care and development of infants and young children. Through study and application in areas such as child growth and development, physical and nutritional needs of children, care and guidance of children, and communication with children and their parents, individuals will be able to function effectively in various programs and/or centers dealing with preschool children.

Job opportunities are available in areas such as day care centers, nursery schools, kindergartens, child development centers, hospitals, rehabilitation clinics, evaluation clinics, campus, and recreational centers.

EARLY CHILDHOOD ASSOCIATE COURSE AND HOUR REQUIREMENTS

	Title		C	L	SH/CL	CH
MAJOR COURSES:						
	EDU 102	Child Health, Safety and Nutrition	5	0	0	5
	EDU 103	Preschool Orientation	1	0	6	3
+ EDU	104	Preschool Observation	1	0	6	3
	EDU 108	Early Childhood Curriculum	5	0	0	5
	EDU 109	Guiding Young Children's Behavior	3	0	0	3
	EDU 111	Language Arts Techniques	3	0	0	3
	EDU 115	Audiovisual and Media Instruction	3	0	0	3
+ EDU	201	Children's Issues in Today's Society	1	0	0	1
	EDU 202	Discipline Strategies in Classroom	3	0	0	3
	EDU 203	Exceptional Children	5	0	0	5
+ EDU	204	Parent Education	1	0	0	1
	EDU 225A	Seminar Practicum: Preschool	1	0	15	6
	EDU 225B	Seminar Practicum: Preschool	1	0	15	6
100	EDU 225C	Seminar Practicum: Preschool	1	0	15	6
	EDU 229	Infant Care Activities	3	0	0	3
	EDU 231	Creative Activities	5	0	0	5
	EDU 232	Preschool Administration and Supervision	3	0	0	3
	TOTALS		45	0	57	64

RELATED COURSES:

BUS	102	Beginning Keyboarding	2	0	3	3
ENG	217	Children's Literature	3	0	0	3
*MAT	100R	Computational Skills	5	0	0	5
PED	150	Foundations in Physical Education	2	0	0	2
PSY	115	Child Growth and Development I	3	0	0	3
PSY	116	Child Growth and Development II	3	0	0	3
SOC	100	Job Search and Career Planning	3	0	0	3
SOC	221	Family	3	0	0	3
	TOTALS		24	0	3	25

GENERAL EDUCATION:			C	L	SH/CL	CH
*ENG	101	Grammar and Composition I	3	0	0	3
ENG	102	Grammar and Composition II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
PSY	102	General Psychology	3	0	0	3
SOC	101	Introduction to Sociology	5	0	0	5
SPH	150	Voice and Diction	3	0	0	3
TOTALS			21	0	0	21
+ Free Electives			2	0	0	2

TOTAL CREDITS FOR AAS DEGREE: **92** **0** **60** **112**

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091, 092, 093, 094, 095, 099, 100, 100A, 101A, 102A; MAT 099.

Students enrolled in this curriculum may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's departmental chairperson.

+ Cooperative Education Work Experience: Up to 5 credit hours may be taken in lieu of approved courses as indicated by a plus.

Students enrolled full-time and making satisfactory progress should complete this program in seven quarters.

ELECTRONICS ENGINEERING TECHNOLOGY

The Electronics curriculum provides a basic background in electronic related theory, with practical applications of electronics for business and industry. Courses are designed to develop competent electronics technicians who may work as assistants to engineers or as liaisons between engineers and skilled craftspersons.

The electronics technician will start in one or more of the following areas: research design, development, production, maintenance, or sales. The graduate may begin as an electronics technician, engineering aide, laboratory technician, supervisor, or equipment specialist.

ELECTRONICS ENGINEERING TECHNOLOGY COURSE AND HOUR REQUIREMENTS

Title			C	L	SH/CL	CH
MAJOR COURSES:						
ELC	101	Fund. of Electricity I	4	4	0	6
ELC	102	Fund. of Electricity II	4	4	0	6
ELC	210	Rotating Devices	2	2	0	3
ELN	100	Intro. to Electronics	3	2	0	4
ELN	101	Electronic Instruments and Measurements	1	4	0	3
ELN	105	Control Devices	4	4	0	6
ELN	205	Application of Transistors	5	6	0	8
ELN	210	Semiconductor Circuit Analysis	5	4	0	7
ELN	211P	Communication Circuits	4	4	0	6
ELN	214	Fund. of Digital Electronics I	3	0	3	4
ELN	215	Fund. of Digital Electronics II	3	0	3	4
ELN	220	Electronic Systems	5	4	0	7
ELN	231	Intro. to Microprocessors	3	0	3	4
TOTALS			46	38	9	68

RELATED COURSES:

102

*MAT	101	Algebra I	5	0	0	5
MAT	102	Trigonometry	5	0	0	5
MAT	103	Algebra II	5	0	0	5
MAT	104	Calculus I	3	0	0	3
MAT	201	Calculus II	3	0	0	3
PHY	101	Physics	4	2	0	5
PHY	102	Physics	4	2	0	5
PHY	104	Physics	3	2	0	4
** + Electives			4	0	0	4
TOTALS			36	6	0	39

GENERAL EDUCATION:

*ENG	101	Grammar and Comp. I	3	0	0	3
ENG	102	Grammar and Comp. II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1

**Social Science Electives	6	0	0	6
TOTALS	19	0	0	19
** + ELECTIVES	2	0	0	2
TOTAL CREDITS FOR AAS DEGREE	101	44	9	128

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
 ENG 091, 092, 093, 094, 095, 099, 100A, 101A, 102A; MAT 099, 100R, 100.

**Students enrolled in this curriculum may select elective credits and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

**Recommended Social Science Electives: PSY 102, 104; SOC 102, 103

**Recommended Related Electives: DFT 107, 110; EDP 112, 114, 147; ELN 245; MEC 112.

+ Cooperative Education Work Experience: Up to 6 credit hours may be taken in lieu of approved courses as indicated by plus and free electives.

Students enrolled full-time and making satisfactory progress should complete this program in seven quarters.

GENERAL TECHNOLOGY

The General Technology Curriculum Core is designed for technical students who wish to acquire general education and related courses in subject areas such as sciences, humanities, social sciences, and mathematics that are foundation courses to the allied health and nursing curricula. Courses are chosen based on the individual needs of the student and the curriculum that the student plans to enter. The student may take this program prior to enrolling in a specific allied health curriculum as an intended objective component of that curriculum, or the student may take this program for transfer to a technical curriculum at another community college.

HUMAN SERVICES TECHNOLOGY

The Human Services Technology curriculum is designed to prepare graduates for entry into a variety of positions in institutions and agencies which provide social, community and educational services to people. Along with the human services courses, the curriculum provides for electives that allow the student to specialize in a specific work interest area. During the last five quarters, emphasis is pertinent to the chosen area. Internships in one or more areas of human services are included in the final phases of the curriculum.

Graduates may find employment in child care agencies, family services agencies, hospitals, mental health centers, public welfare departments, schools, and rehabilitation agencies.

Individuals desiring a career in human services technology should, if possible, take biology, psychology and sociology courses prior to entering the program.

HUMAN SERVICES TECHNOLOGY COURSE AND HOUR REQUIREMENTS

Title		C	L	SH/CL	CH
MAJOR COURSES:					
HSA	100	Basic Health Science	3	0	3
HSA	102	Orientation Lab I	0	2	1
HSA	111	Introduction to Human Services	3	0	3
HSA	112	Group Processes I	1	0	3
HSA	112P	Practicum I	1	0	3
HSA	113	Group Processes II	1	0	3
HSA	113P	Practicum II	1	0	3
HSA	114	Interviewing & Counseling	3	2	0
HSA	115	Field Experience	2	0	30
HSA	116	Group Processes III	1	0	3
HSA	201	Mental Health Care	4	0	3
HSA	202	Orientation Lab II	0	2	1
HSA	209	Treatment Modalities	4	2	0
HSA	210P	Practicum III	1	0	6
HSA	215	Human Services Seminar	3	0	0
HSA	220	Activities in Human Services	2	2	0
HSA	225	Crisis Intervention	4	0	0
HSA	227	Therapeutic Communities	1	2	0
PSY	221	Learning and Behavior	5	2	0
PSY	223	Addictive Behavior	3	0	0
TOTALS		43	14	63	71
RELATED COURSES:					
PSY	120	Human Growth and Development	3	0	0
PSY	211	Behavior Disorders	5	0	0
PSY	222	Exceptionality	5	0	0
PSY	225	Psychological Assessment	3	0	0
PSY	230	Psychology and Physiology of Aging	3	0	0
SOC	160	Courtship and Marriage	5	0	0
TOTALS		24	0	0	24
105					

GENERAL EDUCATION:			C	L	SH/CL	CH
* + ENG	101	Grammar and Composition I*	3	0	0	3
+ ENG	102	Grammar and Composition II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
PSY	150	General Psychology I	4	0	0	4
SOC	102	Principles of Sociology	3	0	0	3
SPH	160	Public Speaking	3	0	0	3
TOTALS			20	0	0	20
+ **ELECTIVES			3	0	0	3

TOTAL CREDITS FOR AAS DEGREE **90** **14** **63** **118**

*If students, as a result of placement tests, are found to be deficient in English skills, they will required to take the appropriate courses from the following list:
ENG 091, 092, 093, 094, 095, 099, 100, 100A, 101A, 102A.

+ College transfer courses may be substituted.

**Students enrolled in this curriculum may select elective credits and make course substitutions fro appropriate subject areas on a credit for-credit basis upon approval by the student's departme chairperson.

***One (1) credit hour from the following may be substituted for HSA 102 or HSA 202: HSA 13
132, 133, 208, 210, 231, 232, 233.

Cooperative Education Work Experience: Up to 3 credit hours may be taken in lieu of electives

Students enrolled full-time and making satisfactory progress should complete this program in sev quarters.

INDUSTRIAL MAINTENANCE TECHNOLOGY

The Industrial Maintenance Technology curriculum is designed specifically to teach individuals to maintain, repair and service sophisticated production equipment such as automated and numerically controlled machines used by industry. Training in theory and practical skills will provide the knowledge needed to inspect, diagnose, repair, and install, industrial, electrical, and mechanical equipment.

The curriculum is structured to provide employable skills early in the program in areas such as welding, machine shop, hydraulics and pneumatics, metallurgy and electricity. Students who demonstrate leadership qualities, aptitude and interest in the field may continue the second year of the program to study maintenance management, rigging, material handling, quality control, and supervision.

INDUSTRIAL MAINTENANCE TECHNOLOGY COURSE AND HOUR REQUIREMENTS

Title			C	L	SH/CL	CH
MAJOR COURSES:						
AHR	101	Air Conditioning and Refrigeration	3	0	3	4
AHR	201	Principles of Heating	3	0	3	4
ELC	112	Alternating and Direct Current	2	0	6	4
ELC	113	Alternating Current and Direct Current Machines and Controls	2	0	6	4
ELC	119	Industrial Electric Controls and Systems	2	0	6	4
ELC	121	Electrical Troubleshooting	1	0	3	2
MEC	101	Machine Processes	3	0	3	4
MEC	102	Machine Processes	3	0	3	4
MEC	114	Shop Practice	1	0	6	3
MEC	210	Physical Metallurgy	3	0	3	4
MEC	222	Rigging and Material Handling	2	0	3	3
MEC	235	Hydraulics and Pneumatics	3	0	3	4
MEC	298	Maintenance Problems I	2	0	3	3
MEC	299	Maintenance Problems II	2	0	3	3
WLD	120	Oxyacetylene Welding	2	0	3	3
WLD	121	Arc Welding	2	0	6	4
WLD	122	Commercial and Industrial Practice	2	0	3	3
TOTALS			38	0	66	60
RELATED COURSES:						
BUS	272	Principles of Supervision	3	0	0	3
DFT	101	Technical Drafting	1	0	3	2
DFT	104	Blueprint Reading: Mechanical	3	0	0	3
DFT	105	Blueprint Reading and Sketching	3	0	0	3
ISC	102	Industrial Safety	3	0	0	3
ISC	201	Industrial Organization and Management	3	0	0	3
ISC	202	Quality Control	3	0	0	3
ISC	205	Maintenance Management	3	0	0	3
MAT	100	Fundamentals Of Mathematics	5	0	0	5
PHY	120	Introduction to the Metric System	3	0	0	3
TOTALS			30	0	3	31

GENERAL EDUCATION:

*ENG	101	Grammar and Composition I	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
PSY	206	Applied Psychology	3	0	0	3
***		Social Science Elective	6	0	0	6
		TOTALS	19	0	0	19
		+ **ELECTIVES	6	0	0	6
		TOTAL CREDITS FOR AAS DEGREE	93	0	69	116

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 092, 093, 094, 095, 099, 100, 100A, 101A, 102A; MAT 099, 100R.

**Students enrolled in this curriculum may select elective credits and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

**Recommended Elective: MEC 271, 273

***Recommended Social Science Electives:
PSY 102, 104, 120, 228; SOC 100, 101, 102, 103; SSC 101

+ Cooperative Education Work Experience: Up to 6 credit hours may be taken in lieu of approved courses as indicated by plus.

Students enrolled three-quarter time and making satisfactory progress should complete this program in thirteen quarters. Currently, this program is offered in the evening only.

INDUSTRIAL MANAGEMENT TECHNOLOGY

The Industrial Management Technology curriculum is designed to provide an individual with the ability to function effectively in supervisory and middle-management positions in industry. This program emphasizes study and application in areas such as business and industrial management, production methods and schedules, inventory control, work analysis, motivation techniques and human relations.

This curriculum is designed to prepare the individual to enter supervisory or middle-management positions, to provide an educational program for upgrading or retraining, and to provide an opportunity for the individual wanting to fulfill professional or general interest needs.

INDUSTRIAL MANAGEMENT TECHNOLOGY COURSE AND HOUR REQUIREMENTS

MAJOR COURSES:

Title		C	L	CL/SH	CH	
ACT	150	Principles of Accounting	3	2	0	4
BUS	123	Business Finance	3	0	0	3
BUS	166	Business Law I	3	0	0	3
BUS	229	Taxes	3	2	0	4
BUS	235	Business Management	3	0	0	3
BUS	239	Marketing	5	0	0	5
BUS	272	Principles of Supervision	3	0	0	3
DFT	101	Technical Drafting	1	0	3	2
ISC	102	Industrial Safety	3	0	0	3
ISC	110	Readings in Industrial Management	1	0	0	1
ISC	120	Readings in Industrial Management	1	0	0	1
ISC	130	Readings in Industrial Management	1	0	0	1
ISC	202	Quality Control	3	0	0	3
ISC	203	Motion Economy	3	0	0	3
ISC	204	Value Analysis	3	0	0	3
ISC	209	Plant Layout	4	0	0	4
ISC	213	Production Planning	4	0	0	4
ISC	231	Manufacturing Processes	5	0	0	5
ISC	232	Labor Relations	4	0	0	4
TOTALS		56	4	3	59	
					109	

RELATED COURSES:

ECO	150	Economics I	3	0	0	3
ECO	151	Economics II	3	0	0	3
EDP	112	BASIC I	2	2	0	3
EDP	114	Introduction to Computer Concepts	3	0	0	3
PSY	104	Human Relations	3	0	0	3
PSY	206	Applied Psychology	3	0	0	3
SOC	103	Social Problems	3	0	0	3
TOTALS			20	2	0	21

GENERAL EDUCATION:

*ENG	101	Grammar and Composition I	3	0	0	3
ENG	102	Grammar and Composition II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
*MAT	101	Algebra I	5	0	0	5
ORI	100	New Student Seminar	1	0	0	1
PHY	120	Introduction to the Metric System	3	0	0	3
		TOTALS	21	0	0	21
	+ **ELECTIVES		10	0	0	10

TOTAL CREDITS FOR AAS DEGREE **107** **6** **3** **111**

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 095, 099, 100, 100A, 101A, 102A; MAT 099, 100R, 100.

**Students enrolled in this curriculum may select elective credits from the following list and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson. PER 150, 155, 161, 162, 163, 165, 201, 211, 221, 261, 262, and 263.

+ Cooperative Education Work Experience: Up to 10 credit hours may be taken in lieu of approved courses as indicated by a plus.

Students enrolled one-half to three-quarter time and making satisfactory progress should complete this program in sixteen quarters. Currently, this program is offered in the evening only.

MANUFACTURING ENGINEERING TECHNOLOGY

The primary objective of the Manufacturing Engineering Technology curriculum is the training of personnel to assist the engineer or small industry in planning, tooling, operating, servicing, and supervising manufacturing operations. The curriculum provides a basic background of mechanical and related theory with specific skills in the use of manufacturing and testing equipment. Students are given experiences in operating and servicing machines, accompanied by general education and management courses.

A graduate of the program may qualify for an entry position in one of several manufacturing functions: methods analysis, production scheduling, quality control, materials testing, plant layout, time study, machine tooling, maintenance, and equipment and instrument work.

MANUFACTURING ENGINEERING TECHNOLOGY COURSE AND HOUR REQUIREMENTS

Title			C	L	CL/SH	CH
MAJOR COURSES:						
DFT	110	Computer-Aided Drafting I (CAD)	1	0	3	2
DFT	111	Computer-Aided Drafting II (CAD)	1	0	3	2
ECO	201	Cost Benefit Analysis	3	0	0	3
ISC	201	Industrial Organization and Management	3	0	0	3
ISC	202	Quality Control	3	0	0	3
ISC	203	Motion Economy	3	0	0	3
ISC	209	Plant Layout	4	0	0	4
MEC	101	Machine Processes	3	0	3	4
MEC	102	Machine Processes	3	0	3	4
MEC	104	Applied Mechanics	5	0	0	5
MEC	201	Manufacturing Processes I	2	2	0	3
MEC	202	Manufacturing Processes II	2	2	0	3
MEC	205	Strength of Materials	3	2	0	4
MEC	210	Physical Metallurgy	3	0	3	4
MEC	235	Hydraulics and Pneumatics	3	0	3	4
MEC	237	Control Systems	3	2	0	4
MEC	240	Introduction to Robotics	3	2	0	4
MEC	270	Introduction to CNC Machining	1	2	0	2
MEC	272	Programming of CNC Equipment	2	2	0	3
TOTALS			51	14	18	64
RELATED COURSES:						
CHM	101	Chemistry	4	2	0	5
EDP	112	BASIC I	2	2	0	3
MAT	101	Algebra I	5	0	0	5
MAT	102	Trigonometry	5	0	0	5
MAT	103	Algebra II	5	0	0	5
MAT	104	Calculus I	3	0	0	3
MEC	250	MET Seminar	1	0	0	1
PHY	101	Physics	4	2	0	5
PHY	102	Physics	4	2	0	5
PHY	104	Physics	3	2	0	4
TOTALS			36	10	0	41

GENERAL EDUCATION:			C	I	CH/SH	CH
ECO 150	Economics I		3	0	0	3
*ENG 101	Grammar and Composition I		3	0	0	3
ENG 102	Grammar and Composition I		3	0	0	3
ENG 103	Report Writing		3	0	0	3
ENG 204	Oral Communications		3	0	0	3
ORI 100	New Student Seminar		1	0	0	1
PSY 206	Applied Psychology		3	0	0	3
TOTALS			19	0	0	19
TOTAL CREDITS FOR AAS DEGREE			106	24	18	124

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091, 092, 093, 094, 095, 100, 100A, 101A, 102A; MAT 099, 100R, 100.

+ Cooperative Education Work Experience: Up to 8 credit hours may be taken in lieu of approved courses as indicated by plus.

Students enrolled full-time and making satisfactory progress should complete this program in seven quarters.

MARKETING AND RETAILING

The Marketing and Retailing curriculum is designed to prepare the individual for entry into middle-management positions in various marketing and retail businesses and industries. This purpose will be fulfilled through study and application in areas such as marketing and merchandising techniques, management, selling, advertising, retailing, and credit and collection procedures.

Through knowledge and skills gained, the individual will be able to perform marketing and distribution activities and through the development of personal competencies and qualities will be provided the opportunity to enter an array of marketing and distribution jobs.

MARKETING AND RETAILING COURSE AND HOUR REQUIREMENTS

Title		C	L	SH/CL	CH
MAJOR COURSES:					
BUS	102	Beginning Keyboarding	2	0	3
BUS	123	Business Finance	3	0	3
BUS	165	Introduction to Business	5	0	5
BUS	166	Business Law I	3	0	3
BUS	168	Marketing Law	3	0	3
BUS	219	Credit Procedures and Problems	3	0	3
BUS	231	Computerized Inventory Procedures	2	2	0
BUS	232	Sales Development	3	0	3
BUS	235	Business Management	3	0	3
BUS	239	Marketing	5	0	5
BUS	241	Buying and Merchandising	3	0	3
BUS	242	Commercial Display and Design	2	2	0
BUS	243	Advertising	3	2	0
BUS	244	Retailing	3	0	3
BUS	245	Retailing Practicum (Intern)	0	20	0
CAT	115	PageMaker For Business	2	2	0
ENG	204	Oral Communications	3	0	3
ENG	206	Business Communications	3	0	3
TOTALS		51	28	3	58
113					

RELATED COURSES:

ACT	150	Principles of Accounting	3	2	0	4
ACT	151	Principles of Accounting	3	2	0	4
ACT	152	Principles of Accounting	3	2	0	4
BUS	140	Spreadsheet Applications	2	2	0	3
BUS	170	Introduction to Microcomputer Appl	2	2	0	3
BUS	229	Taxes	3	2	0	4
ECO	150	Economics I	3	0	0	3
ECO	151	Economics II	3	0	0	3
MAT	110	Business Mathematics	5	0	0	5
TOTALS		27	12	0	33	

GENERAL EDUCATION:			C	L	CL/SH	CH
*ENG	101	Grammar and Composition I	3	0	0	3
ENG	102	Grammar and Composition II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
PSY	150	General Psychology I	4	0	0	4
SOC	100	Job Search and Career Planning	3	0	0	3
**Social Science Elective			3	0	0	3
TOTALS			20	0	0	20
+ FREE ELECTIVES			5	0	0	5
TOTAL CREDITS FOR AAS DEGREE			103	40	3	116

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091, 092, 093, 094, 095, 099, 100, 100A, 101A, 102A; MAT 099, 100R.

Students enrolled in this curriculum may select elective credits from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

****Recommended Social Science Electives:**

ANT 150, 160; GEO 150; HIS 150, 151, 160, 161; POL 102, 103, 150; PSY 102, 104, 206; SOC 102, 103, 150, 160, 170; SSC 101

+ Cooperative Education Work Experience: Up to 6 credit hours may be taken in lieu of electives.

Students enrolled full-time and making satisfactory progress should complete this program in seven quarters.

MEDICAL ASSISTING

The Medical Assisting curriculum prepares the graduate to be a multi-skilled practitioner qualified to perform administrative, clinical and laboratory procedures. The administrative aspects of instruction cover scheduling appointments; processing insurance accounts, medical reports, medical records, medical billing and collection; transcription and computer operations. Clinical and laboratory aspects of study include preparation of the patient for examination, assessing vital signs, assisting with examination and treatment, performing routine lab tests, using the electrocardiograph machine and administration of medication. Developing competencies in effective communication, managerial and supervisory skills, recognizing and responding to emergencies, and demonstrating adherence to ethical and legal standards of medical practices are emphasized.

Graduates of programs accredited by The Committee on Allied Health Education and Accreditation (CAHEA) may apply to take the certification examination administered by the Certifying Board of the American Association of Medical Assistants.

Graduates may be employed in a variety of health related services, such as, physician's offices, hospitals, clinics, industries, insurance companies, public health departments, nursing homes and extended care facilities.

Individuals desiring a career as a medical assistant should take biology, mathematics and typing courses prior to entering the program.

Title		C	L	CL/SH	CH
MAJOR COURSES:					
BUS	113	Machine Transcription I	5	0	5
BUS	115M	Medical Law and Ethics	3	0	3
BUS	184M	Terminology & Vocabulary Medical I	3	0	3
BUS	185M	Terminology & Vocabulary Medical II	3	0	3
BUS	186M	Terminology & Vocabulary Medical III	3	0	3
BUS	188	Medical Transcription I	4	2	5
IED	101	Orientation to Health Careers	2	0	2
IED	102	Medical Office Adm. I	3	0	3
IED	103	Medical Office Adm. II	4	2	5
IED	104	Medical Office Adm. III	4	2	5
IED	111	Laboratory Procedures	2	2	3
IED	201	Medical Office Adm. IV	3	2	4
IED	202	Medical Office Adm. V	3	2	4
IED	203	Clinical Education	2	0	24
IED	211	Medication Administration	2	2	3
TOTALS			46	14	61

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RELATED COURSES:

US	101	Basic Life Science	5	0	5
US	103	Intermediate Keyboarding	2	0	3
US	170	Introduction to Micro-computer Applications	2	2	3
US	171	Word Processing	2	2	3
US	187	Intro to Transcription	3	0	3
US	248	Medical Insurance	3	0	3
EA	111	Cardiopulmonary Resuscitation	1	0	1
IAT	114	Medical Dosage Calculations	2	0	2
TOTALS			20	4	23

GENERAL EDUCATION:

*ENG	101S	Grammar	5	0	0	5
ENG	102	Grammar and Comp. II	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
PSY	102	General Psychology	3	0	0	3
PSY	104	Human Relations	3	0	0	3
SOC	102	Principles of Soc.	3	0	0	3
		TOTALS	21	0	0	21
		ELECTIVES:	4	0	0	4
		TOTAL CREDITS FOR AAS DEGREE	91	18	27	109

MEDICAL OFFICE TECHNOLOGY

This curriculum prepares individuals to enter the medical secretarial profession. The medical secretary performs secretarial duties utilizing the knowledge of medical terminology and medical office and/or laboratory procedures.

Skills are taught in processing medical documents using computerized functions and/or manual functions. Compiling and recording medical charts, reports, case histories, and correspondence using the typewriter or automated office equipment, scheduling appointments, and preparing and sending bills to patients are duties performed in the medical office and taught in this curriculum.

Graduates of the curriculum may find employment opportunities with medical supply and equipment manufacturers, medical laboratories, the offices of physicians, hospitals, and other medical care providers.

MEDICAL OFFICE TECHNOLOGY COURSE AND HOUR REQUIREMENTS

Title		C	L	CL/SH	CH
MAJOR COURSES:					
BUS	102	Beginning Keyboarding	2	0	3
BUS	103	Intermediate Keyboarding	2	0	3
BUS	112	Filing	3	0	3
BUS	113	Machine Transcription I	5	0	5
BUS	115M	Medical Law and Ethics	3	0	3
BUS	117	Electronic Calculator: Secretary	2	0	3
BUS	170	Intro. to Microcomputer Applications	2	2	0
BUS	171	Word Processing	2	2	0
BUS	172	Advanced Word Processing	2	2	0
BUS	184M	Terminology and Vocab: Medical I	3	0	0
BUS	185M	Terminology and Vocab: Medical II	3	0	0
BUS	186M	Terminology and Vocab: Medical III	3	0	0
BUS	187	Intro. to Transcription	3	0	0
BUS	188	Medical Transcription I	4	2	0
BUS	189	Medical Transcription II	4	2	0
BUS	216	Office Procedures	5	0	0
BUS	248	Medical Insurance	3	0	0
TOTALS		51	10	9	59

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RELATED COURSES:

CT	150	Principles of Accounting	3	2	0	4
IO	100	Introduction to Human Biology	5	0	0	5
US	134	Professional Development	3	0	0	3
US	165	Introduction to Business	5	0	0	5
NG	106	Spelling Techniques	3	0	0	3
NG	206	Business Communications	3	0	0	3
IAT	110	Business Mathematics	5	0	0	5
		Business Electives	6	0	0	6
TOTALS		33	2	0	34	

GENERAL EDUCATION:			C	L	CL/SH	CH
*ENG	101S	Grammar	5	0	0	5
ENG	102	Grammar and Composition II	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
SOC	100	Job Search and Career Planning	3	0	0	3
** + Social Science Elective			5	0	0	5
TOTAL			20	0	0	20
WORK EXPERIENCE:						
+ COE	101B	Cooperative Education Field Experience	0	0	20	2
+ FREE ELECTIVES			3	0	0	3
TOTAL CREDITS FOR AAS DEGREE			107	12	29	118

*If students, as a result of placement tests, are found to be deficient in math and English skills, the will be required to take the appropriate courses from the following list:
 ENG 091, 092, 093, 094, 095, 099, 100, 100A; MAT 099, 100R.

****Recommended Social Science Electives:**

PSY 102, 103, 104, 115, 116, 120, 150, 151, 170, 180, 206, 223, 228, 230; SOC 101, 102, 103, 150, 160, 170, 221.

***Recommended Business Electives: BUS 140, 141, 166, 167, 184D, 192, 193, 194; ECO 108.

+ Cooperative Education Work Experience: Up to 5 credit hours may be taken in lieu of electives.

Students enrolled full-time and making satisfactory progress should complete this program in seven quarters.

+ + BUS 184D Terminology and Vocabulary: Dental may be substituted for BUS 184M Terminology and Vocabulary: Medical I.

MEDICAL SONOGRAPHY

The medical sonography curriculum offers education options of one-year diploma program for two-year allied health occupations as recognized by the American Medical Association (AMA) or a two-year associate in applied science degree (AAS) program for high school graduates. The curriculum provides for knowledge and clinical skills in the application of high frequency sound waves to image internal body structures. Physics, cross-sectional anatomy, abdominal, gynecological, obstetrical, breast and thyroid sonography are emphasized. Competency in the identification of normal anatomy, sonic physics, stages of fetal development and use of equipment in each procedure as well as effective communication skills are necessary to obtain high quality sonograms to assist in recognizing abnormalities and in making diagnoses.

Graduates of the diploma program option are eligible to apply to the American Registry of Diagnostic Medical Sonographers for examinations in physics, abdomen, obstetrics and gynecology. Graduates from an AMA approved associate degree program are eligible to apply for these examinations upon graduation.

Graduates may be employed as staff and department heads in clinics, private doctors' offices, hospitals and as instructors in colleges and universities.

MEDICAL SONOGRAPHY COURSE AND HOUR REQUIREMENTS

Course Title		C	L	SH/CL	CH
AJOR COURSES:					
DT	101	Radiologic Technology I	4	2	0 5
DT	102	Radiologic Technology II	4	2	0 5
DT	103	Radiologic Technology III	4	2	0 5
DT	111	Radiographic Positioning	3	2	3 5
DT	112	Clinical Education	2	0	12 6
DT	113	Clinical Education	3	4	15 10
DT	210	Pathology	3	0	0 3
SN	201	Introduction to Ultrasound	6	0	0 6
SN	202	Ultrasound Physics	5	0	0 5
SN	211	Clinical Education	2	0	21 9
SN	212	Clinical Education	2	0	21 9
SN	213	Clinical Education	2	0	21 9
SN	214	Clinical Education	4	2	21 12
SN	221	Instrumentation & Principles of OB-GYN Sonography	6	0	0 6
SN	222	Instrumentation & Principles for Abdominal Sonography	6	0	0 6
TOTALS		56	14	114	101

RELATED COURSES:

B)	107	Anatomy & Physiology I	4	2	0 5
B)	108	Anatomy & Physiology II	4	2	0 5
BS	115M	Medical Law and Ethics	3	0	0 3
HA	111	Cardiopulmonary Resuscitation	1	0	0 1
MT	101	Algebra I	5	0	0 5
TOTALS		17	4	0	19

GENERAL EDUCATION:

*ENG	101	Grammar & Composition I	3	0	0	3
ENG	102	Grammar & Composition II	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
PSY	104	Human Relations	3	0	0	3
PSY	150	General Psychology I	4	0	0	4
SOC	150	Sociology	5	0	0	5
		TOTALS	19	0	0	19
		TOTAL CREDITS FOR AAS DEGREE:	92	18	114	139

NURSING EDUCATION OPTIONS

The Nursing Education Options: Associate Degree with Practical Nursing is a unique nursing curriculum designed to prepare graduates to practice as a practical nurse (LPN) or a registered nurse (RN). Students who choose to exit after four (4) quarters have received fundamental preparation in nursing enabling them to be eligible to take the licensing examination (NCLEX-PN) required for practice as a Licensed Practical Nurse. Graduates of the second year have developed the knowledge and skills which will enable them to be eligible to take the licensing examination (NCLEX-RN) required to practice as a Registered Nurse. Licensed Practical Nurses who meet specific criteria may also enter this program with advanced credits toward the Associate of Applied Science Degree.

The first year graduate possesses a sound basic knowledge of nursing theory and proficiency in fundamental nursing skills. The graduate may provide care and treatment to selected patients under the supervision of a registered nurse or physician. The practical nurse graduate is prepared specifically to participate in assessing the patient's physical and mental health; record and report the results of the nursing assessment; participate in implementing the health care plan; reinforce the teaching and counseling of a registered nurse, physician, or dentist; and (5) record and report the nursing care rendered and the patient's response to that care.

The graduate of the second year is prepared to carry out nursing measures as well as medically delegated procedures utilizing the principles and theories of nursing and the sciences. The associate degree graduate is prepared to assess the patient's physical and mental health; to record and report the results of the nursing assessment; to plan, initiate, deliver, and evaluate appropriate nursing acts; to teach, delegate to, or supervise other personnel in implementing the treatment regimen; to collaborate with other health care providers in determining the appropriate health care for a patient; to implement the treatment and pharmaceutical regimen prescribed by any person authorized by State law to prescribe such a regimen; provide teaching and counseling about the patient's health care; to report and record the plan of care, nursing care given, and the patient's response to care; and to supervise, teach, and evaluate those who perform or are preparing to perform nursing functions.

NURSING EDUCATION OPTIONS COURSE AND HOUR REQUIREMENTS

Title		C	L	CL/SH	CH	
MAJOR COURSES:						
NUR	101	Fundamentals of Nursing	6	6	0	9
NUR	102	Medical-Surgical Nursing I	8	2	12	13
NUR	103	Medical-Surgical Nursing II	8	2	12	13
NUR	104	Maternal-Child Nursing I	8	0	12	12
NUR	110	Pharmacology	2	0	0	2
NUR	121	Health Assessment	2	0	0	2
NUR	131	Nursing Seminar	2	0	0	2
NUR	201	Maternal Child Nursing II	6	0	15	11
NUR	202	Psychiatric Nursing	5	0	6	7
NUR	203	Medical-Surgical Nursing III	6	0	15	11
NUR	204	Patient Care Management	4	0	6	6
TOTALS			57	10	78	88
			C	L	CL/SH	CH

NUR	200	Transition Nursing	4	2	12	9
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RELATED COURSES:

BIO	150	Human Anatomy & Physiology I	3	2	0	4
BIO	151	Human Anatomy & Physiology II	3	2	0	4

BIO	152	Human Anatomy & Physiology III	3	2	0	4
BIO	206	Microbiology	3	2	0	4
HEA	111	Cardiopulmonary Resuscitation	1	0	0	1
MAT	114	Medical Dosage Calculations	2	0	0	2
PSY	180	Abnormal Psychology	3	0	0	3
		TOTALS	18	8	0	22

GENERAL EDUCATION:

* + ENG	101	Grammar and Composition I	3	0	0	3
+ ENG	102	Grammar and Composition II	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
PSY	120	Human Growth and Development	3	0	0	3
PSY	150	General Psychology I	4	0	0	4
SOC	150	Sociology	5	0	0	5
		TOTALS	19	0	0	19

TOTAL CREDITS FOR DIPLOMA **79**

TOTAL CREDITS FOR AAS DEGREE: **94** **18** **78** **129**

+ May substitute college transfer English.

*Licensed practical nurses applying for advanced standing must take NUR 200 the summer prior entering the second year of the program.

Cooperative Education not allowed.

Students enrolled full-time and making satisfactory progress should complete this program in seven quarters.

If students as a result of placement tests are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
 ENG 091, 092, 093, 094, 095, 099, 100A, 101A, 102A; MAT 099, 100R, 100.

PARALEGAL TECHNOLOGY

The Paralegal Technology curriculum trains individuals to work under the general direction of lawyers, to relieve lawyers of routine matters, and to assist them in the conduct of more complicated and difficult tasks. The legal technician should be capable of doing independent legal work under the supervision of a lawyer and search out information and court facts for the lawyer. Training will include general subjects such as English, accounting, and psychology as well as specialized legal courses such as legal definitions, court systems, laws, and techniques of investigation.

Graduates of the Paralegal Technology curriculum should be able to directly assist a lawyer or group of lawyers in most facets of law, but they must always work under the supervision of a lawyer. The legal technician will not be qualified to give legal advice, enter into courtroom procedure, or be involved in litigation except as an assistant to the lawyer. Paralegal graduates will be able to assist in work on probate matters, conducting investigations, searching public records, preparation of tax forms, serving and filing legal documents, bookkeeping, library research, and providing office management assistance. Employment opportunities are available in public and private law firms and with individual lawyers.

PARALEGAL TECHNOLOGY COURSE AND HOUR REQUIREMENTS

Title		C	L	CL/SH	CH
MAJOR COURSES:					
BUS	166	Business Law I	3	0	3
BUS	167	Business Law II	3	0	3
CJC	101	Intro. to Criminal Justice	5	0	5
CJC	102	Legal Research I	1	2	2
CJC	109	Interviewing	3	0	3
CJC	112	Motor Vehicle Law	3	0	3
CJC	115	Criminal Law I	3	0	3
CJC	116	Criminal Law II	3	0	3
CJC	125	Criminal Procedures and N.C. Court System	3	0	3
CJC	204	Evidence Photography	3	0	3
CJC	205	Evidence	3	0	3
CJC	210	Techniques of Investigation	4	2	5
CJC	235	Forensic Science	3	2	4
LEC	203	Legal Research II	1	2	2
LEC	207	Law Office Management	3	0	3
LEC	210	Real Property and Title Abstracting I	2	2	3
LEC	211	Real Property and Title Abstracting II	2	2	3
LEC	212	Real Estate Transactions	2	2	3
LEC	220	Family Law	3	0	3
LEC	224	Torts	3	0	3
LEC	229	Taxes	3	0	3
LEC	232	Estate Administration	3	0	3
LEC	240	Civil Litigation	3	0	3
TOTALS:		65	14	3	73

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RELATED COURSES:

ACT	150	Principles of Accounting	3	2	0	4
BUS	170	Introduction to Micro-computer Applications	2	2	0	3
CHM	101	Chemistry	4	2	0	5
CJC	211	Criminalistics	4	2	0	5

HEA	110	First Aid and Medical Terminology	2	2	0	3
*MAT	101	Algebra I	5	0	0	5
		TOTALS	20	10	0	25

GENERAL EDUCATION:

*ENG	101	Grammar and Composition I	3	0	0	3
ENG	102	Grammar and Composition II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
POL	102	National Government	3	0	0	3
POL	103	State & Local Government	3	0	0	3
+ PSY	102	General Psychology	3	0	0	3
		TOTALS	22	0	0	22
		**Electives	3	0	0	3

TOTAL CREDITS FOR AAS DEGREE: **110** **24** **3** **123**

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091, 092, 093, 094, 095, 099, 100, 100A, 101A, 102A; MAT 099, 100R, 100.

Students enrolled in this curriculum may select elective credits from the list of recommended electives or from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon arrival by the student's department chairperson.

**CJC 151, 152, 153, 154, 155, 156 may be substituted for CJC 101 Introduction to Criminal Justice, or as electives. LEC 250, Paralegal Internship may be taken as an elective.

+ Cooperative Education Work Experience: Up to 8 credit hours may be taken in lieu of courses indicated by a plus.

Students enrolled full-time and making satisfactory progress should complete this program in seven quarters.

PERSONNEL MANAGEMENT TECHNOLOGY

The Personnel Management Technology curriculum is designed to meet the multifaceted demands of human resources management in business, industry, and service agencies. The primary objective of this curriculum is the development of generalists, paraprofessionals, technicians, and specialists in three major areas: personnel administration, training, and managerial skills. Courses in the personnel administration area should provide the students with the key competencies and technical expertise to handle interviewing, recruiting, placement, compensation, benefits, planning, and needs assessment. The course in training should familiarize the students with learning approaches, skills building, and the design and preparation of training materials and programs. In addition, the students will be given ample exposure to necessary management and people skills to enable them to work effectively with all employees in their respective organizations. Graduates from this program should be able to function at entry level positions in personnel training, and other human resource development areas.

PERSONNEL MANAGEMENT TECHNOLOGY COURSE AND HOUR REQUIREMENTS

Title		C	L	CL/SH	CH
MAJOR COURSES:					
ACT	150	Principles of Accounting	3	2	0
BUS	170	Intro to Microcomputer Applications	2	2	0
BUS	272	Principles of Supervision	3	0	0
ISC	102	Industrial Safety	3	0	0
ISC	232	Labor Relations	4	0	0
PER	150	Personnel Administration	3	0	0
PER	155	Personnel Law	3	0	0
PER	161	People Skills I: Personal Dynamics	3	0	0
PER	162	People Skills II: Interpersonal Dynamics	3	0	0
PER	163	People Skills III: Organizational Dynamics	3	0	0
PER	165	Compensation & Benefits	3	0	0
PER	201	Performance Appraisal	3	0	0
PER	211	Leadership & Management Skills	3	0	0
PER	221	Managerial Communications	3	0	0
PER	261	Training I: Adult Learning Principles	3	0	0
PER	262	Training II: Material Preparation	3	0	0
PER	263	Training III: Presentation Skills	3	0	0
		**Electives	12	0	0
		Totals	63	4	65

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RELATED COURSES:

ECO	150	Economics I	3	0	0	3
ECO	151	Economics II	3	0	0	3
EDP	114	Intro to Computer Concepts	3	0	0	3
MAT	110	Business Mathematics	5	0	0	5
		TOTALS	14	0	0	14

GENERAL EDUCATION:			C	L	CH/SH	CH
*ENG	101	Grammar and Composition I	3	0	0	3
ENG	102	Grammar and Composition II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
PSY	206	Applied Psychology	3	0	0	3
SOC	103	Social Problems	3	0	0	3
TOTALS			19	0	0	19
+ Free Electives			9	0	0	9

TOTAL CREDITS FOR AAS DEGREE **105** **4** **0** **107**

*If students, as a result of placement tests are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091, 092, 093, 094, 095, 099, 100A, 101A; MAT 099, 100R.

Students enrolled in this curriculum may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's departmental chairperson.

**Recommended Major Course Electives:

ACT 151, 152; BUS 102, 103, 110, 115M, 134, 136, 140, 141, 166, 171, 235, 239, 243; ISC 201, 209, 231

+ Cooperative Education Work Experience: Students may choose work experience as a free elective.

Currently, this curriculum is offered only in the evening.

RADIOLOGIC TECHNOLOGY

The Radiologic Technology curriculum prepares graduates to be competent medical radiographers. The radiographer is a skilled person qualified by technological education to provide patient services using imaging modalities (as directed by physicians qualified to order and/or perform radiologic procedures) by: (1) applying knowledge knowledge of anatomy, positioning, and radiographic techniques to accurately demonstrate anatomical structures on a radiograph; (3) determining exposure factors to achieve optimum radiographic technique with a minimum of radiation exposure to the patient; (4) examining radiographs for the purpose of evaluating technique, positioning and other pertinent technical qualities; (5) exercising discretion and judgment in the performance of medical imaging procedures; (6) providing patient care essential to radiologic procedures; and (7) recognizing emergency patient conditions and initiating life-saving first aid.

Graduates may be employed in radiology departments in hospitals, clinics, physician's office, research and medical laboratories, federal and state agencies, and industry.

Graduates are eligible to take the national examination given by the American Registry of Radiologic Technologists for certification and registration as medical radiographers.

Individuals desiring a career in radiologic technology should take courses in biology, algebra and chemistry and/or physics prior to entering the program.

RADIOLOGIC TECHNOLOGY COURSE AND HOUR REQUIREMENTS

Title		C	L	CL/SH	CH
MAJOR COURSES:					
BIO	210	Radiation Biology	4	0	4
RDT	101	Radiologic Technology I	4	2	4
RDT	102	Radiologic Technology II	4	2	5
RDT	103	Radiologic Technology III	4	2	5
RDT	111	Radiographic Positioning	3	2	5
RDT	112	Clinical Education	2	0	6
RDT	113	Clinical Education	3	4	10
RDT	114	Clinical Education	3	4	10
RDT	204	Radiologic Technology IV	4	2	5
RDT	205	Radiologic Technology V	4	2	5
RDT	208	Radiologic Technology VI	6	0	6
RDT	210	Pathology	3	0	3
RDT	211	Radiologic Physics	3	2	4
RDT	215	Clinical Education	4	0	10
RDT	216	Clinical Education	3	0	9
RDT	217	Clinical Education	2	0	8
RDT	218	Clinical Education	1	0	7
TOTALS		57	22	117	127

RELATED COURSES:

BIO	107	Anatomy and Physiology I	4	2	0	5
BIO	108	Anatomy and Physiology II	4	2	0	5
EDP	112	Basic I	2	2	0	3
HEA	111	Cardiopulmonary Resuscitation	1	0	0	1
*MAT	101	Algebra I	5	0	0	5
TOTALS		16	6	0	19	

GENERAL COURSES:			C	L	CL/SH	CH
*ENG	101	Grammar and Composition I	3	0	0	3
ENG	102	Grammar and Composition II	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
PSY	104	Human Relations	3	0	0	3
PSY	150	General Psychology I	4	0	0	4
SOC	150	Sociology	5	0	0	5
TOTALS			19	0	0	19
TOTAL CREDITS FOR AAS DEGREE			92	28	117	145

Cooperative Education is not allowed.

Students enrolled full-time and making satisfactory progress should complete this program in eight quarters.

If students as a result of placement tests are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
 ENG 091, 092, 093, 094, 095, 099, 100A, 101A, 102A; MAT 099, 100R, 100.

RESPIRATORY CARE TECHNOLOGY

The Respiratory Care Technology curricula offer career education options for respiratory therapists and/or respiratory therapy technicians.

The respiratory therapist specializes in the application of scientific knowledge and theory to practical, clinical problems of respiratory care. Knowledge and skills for performing these functions are usually achieved through two or more years of academic and clinical preparation. The respiratory therapist is qualified to assume primary clinical responsibility for all respiratory care modalities, including responsibilities involved in supervision of respiratory technician functions. The therapist is frequently required to exercise considerable independent, clinical judgment in the respiratory care of patients under the direct or indirect supervision of a physician. Further, the therapist is capable of serving as a technical resource person to the physician with regard to current practices in respiratory care and to the hospital staff as to effective and safe methods for administering respiratory care.

The technician's role does not require the exercising of independent, clinical judgment; however, the technician is expected to adjust or modify therapeutic techniques within well-defined procedures based on a limited range of patient responses. Therefore, the effective use of the technician, especially in the critical care setting, requires the supervision of a respiratory therapist or a physician experienced in respiratory care. Knowledge and skills for performing these functions are usually achieved through one or more years of academic and clinical preparation.

Graduates of the technical and therapist curricula are eligible to apply for admission to the Entry Level Respiratory Care Practitioner (CRTT) examination by the National Board for Respiratory Care. Graduates of the therapist level curriculum are eligible to apply for admission to the Advanced Respiratory Care Practitioner (RRT) examination.

Graduates may be employed in a wide variety of health related areas including hospitals (in respiratory therapy, special services, cardio-pulmonary, anesthesiology, or pulmonary medicine departments), respiratory equipment sales and rental companies, rehabilitation centers, skilled nursing care facilities, and educational and research institutions.

Individuals desiring a career in respiratory care technology should take biology, algebra and chemistry courses prior to entering the program.

RESPIRATORY CARE TECHNOLOGY COURSE AND HOUR REQUIREMENTS

Title		C	L	CL/SH	CH	
MAJOR COURSES:						
RCT	101	Respiratory Care I	3	2	0	4
RCT	102	Respiratory Care II	3	2	0	4
RCT	103	Clinical Practice I	0	0	6	2
RCT	104	Cardiopulmonary	3	0	0	3
RCT	105	Anatomy and Physiology	3	0	0	3
RCT	106	Pharmacology	0	0	15	5
RCT	107	Clinical Practice II	3	0	0	3
RCT	108	Acid Base Chemistry	3	2	0	4
RCT	109	Continuous Mechanical Ventilation I	3	2	0	4
RCT	110	Ventilation II	0	0	15	5
RCT	111	Clinical Practice III	4	0	0	4
RCT	201	Pathology	2	2	0	3
RCT	202	Diagnostic and Therapeutic Procedures	2	2	0	3
RCT	203	Continuous Mechanical Ventilation II	2	2	0	3
RCT	204	Clinical Practice IV	0	0	18	6
RCT	205	Perinatology and Pediatrics	2	2	0	3
RCT	206	Pediatric Pathophysiology	3	0	0	3
RCT	207	Cardiopulmonary Function	3	2	0	4
RCT	208	Clinical Practice V	0	0	15	5
RCTG	209	Clinical Practice VI	0	0	24	8
RCTG	210	Seminar	3	0	0	3
TOTALS		37	14	93	75	129

RELATED COURSES:

BIO	107	Anatomy & Physiology I	4	2	0	5
BIO	108	Anatomy & Physiology II	4	2	0	5
BIO	206	Microbiology	3	2	0	4
CHM	110	Chemistry for Allied Health	3	3	0	4
HEA	111	Cardiopulmonary Resuscitation	1	0	0	1
*MAT	101	Algebra I	5	0	0	5
		TOTALS	20	9	0	24

GENERAL EDUCATION:

*ENG	101	Grammar and Composition I	3	0	0	3
ENG	102	Grammar and Composition II	3	0	0	3
ENG	204	Oral Communications	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
PSY	102	General Psychology	3	0	0	3
PSY	104	Human Relations	3	0	0	3
SOC	102	Principles of Sociology	3	0	0	3
		TOTALS	19	0	0	19

TOTAL CREDITS FOR AAS DEGREE **76** **23** **93** **118**

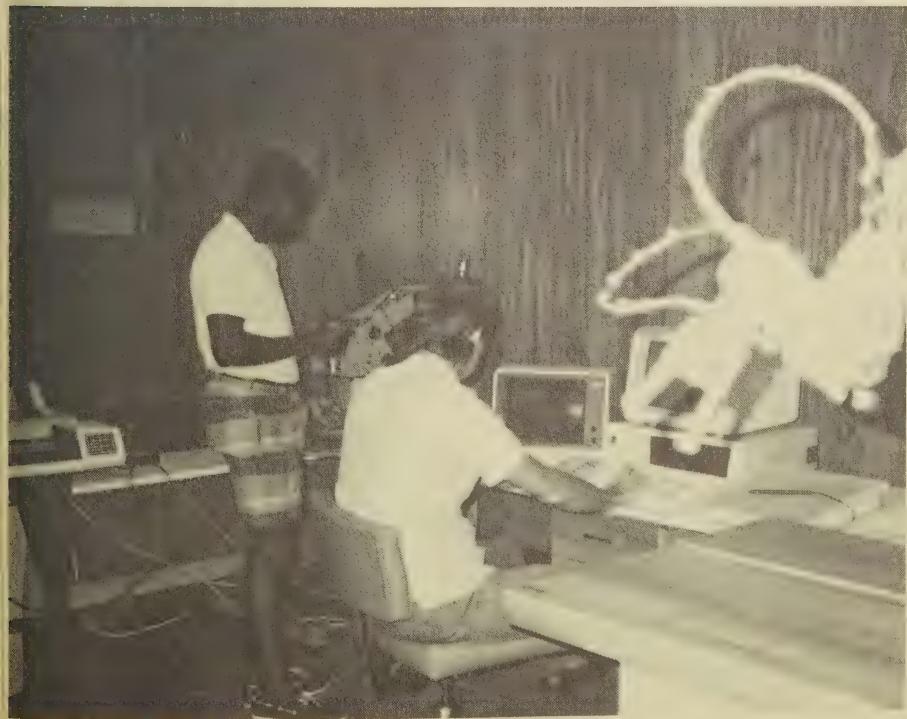
Cooperative Education is not allowed.

Students enrolled full-time and making satisfactory progress should complete this program in seven quarters.

*If students as a result of placement tests are found to be deficient in math and English skills they will be required to take the appropriate courses from the following list:
ENG 091, 092, 093, 094, 095, 099, 100A, 101A, 102A,; MAT 099, 100R, 100.



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Vocational Education



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AIR CONDITIONING, HEATING, AND REFRIGERATION

The Air Conditioning, Heating, and Refrigeration curriculum develops an understanding of the basic principles involved in the construction, installation, operation and maintenance of climate control equipment. Courses in blueprint reading, duct construction, welding, circuits and controls, math, science, and general education are included to help provide supporting skills necessary for the mechanic to function successfully in the trade.

The air conditioning, heating, and refrigeration mechanic installs, maintains, services, and repairs environmental control systems in residences, department and food stores, office buildings, industries, restaurants, institutions, commercial establishments. Job opportunities exist with companies that specialize in air conditioning, heating, and commercial refrigeration installation and service. The graduate should be able to assist in installing mechanical equipment, duct work, and electrical controls necessary in residential and commercial projects. With experience the graduate should be able to serve various air conditioning, heating, and refrigeration components; troubleshoot systems; and provide the preventive maintenance required by mechanical equipment. This person may be employed in areas of maintenance, installation, sales, and service in the field of air conditioning, heating and cooling.

AIR CONDITIONING, HEATING, AND REFRIGERATION COURSE AND HOUR REQUIREMENTS

Title		C	L	CL/SH	CH
MAJOR COURSES:					
AHR	1107	Gas Laws: Refrigeration	2	0	3
+ AHR	1115	Fundamentals of Heating	2	0	6
**AHR	1121	Principles of Refrigeration	3	0	12
AHR	1122	Domestic and Commercial Refrigeration	3	0	6
**AHR	1123	Principles of Air Conditioning	3	0	12
AHR	1124	Air Conditioning, Heating and Refrigeration Service	3	0	6
AHR	1126	All Year Comfort Systems	3	0	6
AHR	1128	Automatic Controls	3	0	6
MEC	1120	Duct Construction and Installation	3	0	6
		TOTALS	25	0	63
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RELATED COURSES:

BUS	1103	Small Business Operations	3	0	0	3
DFT	1103	Blueprint Reading: Mechanical	0	0	3	1
DFT	1116	Blueprint Reading: Air Conditioning	1	0	3	2
ELC	1102	Applied Electricity	3	0	3	4
*MAT	100	Fundamentals of Mathematics	5	0	0	5
WLD	1102	Basic Gas Welding	0	0	3	1
		TOTALS	12	0	12	16

GENERAL EDUCATION:		C	L	CL/SH	CH
ENG	1101	Reading Improvement	2	0	2
ENG	1102	Communication Skills	3	0	3
ORI	100	New Student Seminar	1	0	1
PSY	1101	Human Relations	3	0	3
TOTALS		9	0	0	9
TOTAL CREDITS FOR DIPLOMA		46	0	75	71

If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
 ENG 091; MAT 099, 100R.

Students enrolled in this curriculum may select elective credits from other related courses and make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

AHR 1119 and AHR 1120 are equivalent to AHR 1121

AHR 1117 and AHR 1118 are equivalent to AHR 1123

Cooperative Education Work Experience: Up to 4 credit hours may be taken in lieu of approved courses as indicated by a plus symbol.

Students enrolled full-time and making satisfactory progress should complete this program in four quarters.

AUTOMOTIVE MECHANICS

The Automotive Mechanics curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair, and adjust automotive vehicles. Manual skills are developed in practical shop work and the technical understanding of the operating principles involved in the modern automobile are taught through class assignments, discussions, and shop practices.

Automobile mechanics maintain and repair mechanical, electrical, and body parts of passenger cars, trucks and buses. In some communities and rural areas, they also may service tractors or marine engines and other gasoline-powered equipment. Mechanics inspect and test to determine the causes of faulty operation. They repair or replace defective parts to restore the vehicle or machine to proper operating condition and use shop manuals and other technical publications as references for technical data. Persons completing this curriculum may find employment with franchised automobile dealers, or independent garages or may start their own business.

AUTOMOTIVE MECHANICS COURSE AND HOUR REQUIREMENTS

Title		C	L	CL/SH	CH
MAJOR COURSES:					
AHR	1101	Automotive Air Conditioning	3	0	6
PME	1100	Basic Auto Maint.	0	0	3
PME	1101	Internal Combustion Engine	5	0	12
PME	1102	Electrical System	5	0	12
PME	1104	Fuel Systems: Gasoline and Diesel	5	0	9
PME	1123	Brakes, Chassis, Suspension	3	0	9
PME	1124	Power Trains	3	0	9
PME	1125	Auto Servicing	3	0	9
PME	1202	Electricity Electronics	5	0	9
PME	1204	Emission Controls	5	0	6
**PME	1208	Specialized Auto Electronics I Or	1	2	0
136	**PME	1209	Specialized Auto Electronics II Or		
**PME	1210	Auto Engine Electronics			
PME	1224	Automatic Transmission	5	0	12
		TOTALS	43	2	96
					76

RELATED COURSES:

*MAT	100	Fundamentals of Mathematics	5	0	0	5
+ MEC	1112	Machine Shop Processes	1	0	3	2
+ MEC	1147	System of Measurement and Measuring Tools	2	0	0	2
PHY	1103	Principles of Electricity	3	2	0	4
PME	1230	Auto Service Excellence Test Review	5	0	0	5
WLD	1129	Basic Gas & Electric Welding	2	0	6	4
		TOTALS	18	2	9	22

GENERAL EDUCATION:		C	L	SL/SH	CH
*ENG	1101	Reading Improvement	2	0	2
ENG	1102	Communication Skills	3	0	3
ORI	100	New Student Seminar	1	0	1
PSY	1101	Human Relations	3	0	3
TOTALS		9	0	0	9
FREE ELECTIVES		3	0	0	3
TOTAL CREDITS FOR DIPLOMA		73	4	105	110

If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091; MAT 099, 100R.

Students enrolled in this curriculum may select elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

Cooperative Education Work Experience: Up to 4 credit hours may be taken in lieu of courses indicated with a plus.

The student will take one of these depending on his/her electronic background.

Students enrolled full-time and making satisfactory progress should complete this program in seven quarters.

CARPENTRY AND CABINETMAKING

Carpenters construct, erect, install and repair structures of wood, plywood, and wallboard, using hand and power tools. This curriculum in carpentry is designed to prepare individuals with skills and knowledge of construction with wood. The curriculum includes mathematics, blueprint reading, methods of construction, and information on building materials and energy efficient construction.

Carpenters work on new construction and maintain and repair many types of existing structures, both residential and commercial. They have an understanding of building materials, concrete form construction, rough framing, roof and stair construction, the application of interior and exterior trim, insulation, and other energy saving materials and the installation of cabinets and fixtures.

Most carpenters are employed by contractors in the building construction fields. When specializing in a particular phase of carpentry, the job may be designated according to the specialty as rough carpenter, framing carpenter, form carpenter, scaffolding carpenter, acoustical insulation carpenter, and finish carpenter.

CARPENTRY AND CABINETMAKING COURSE AND HOUR REQUIREMENTS

Title			C	L	CL/SH	CH
MAJOR COURSES:						
CAR	1101	Carpentry	3	0	15	8
**CAR	1102	Carpentry: Millwork and Cabinetmaking	3	0	15	8
CAR	1103	Carpentry: Framing	3	0	15	8
CAR	1104	Carpentry: Finishing	3	0	18	9
CAR	1113	Carpentry: Estimating	3	0	3	4
CAR	1114	Building Codes	3	0	0	3
TOTALS			18	0	66	40
RELATED COURSES:						
BUS	1103	Small Business Operations	3	0	0	3
DFT	1110	Blueprint Reading: Building Trades	3	0	0	3
DFT	1111	Blueprint Reading and Sketching I	3	0	0	3
DFT	1112	Blueprint Reading and Sketching II	3	0	0	3
*MAT	100	Fundamentals of Mathematics	5	0	0	5
MAT	1112	Building Trades Mathematics	3	0	0	3
TOTALS			20	0	0	20
GENERAL EDUCATION:						
+ *ENG	101	Reading Improvement	2	0	0	2
ENG	1102	Communication Skills	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
PSY	1101	Human Relations	3	0	0	3
TOTALS			9	0	0	9
TOTAL CREDITS FOR DIPLOMA			47	0	66	69

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091; MAT 099, 100R.

Students enrolled in this curriculum may select elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

*CAR 1109, 1110, and 1111 series is equivalent to CAR 1102.

- Cooperative Education Work Experience: Up to 2 credit hours may be taken in lieu of approved courses as approved by department chairman.

Students enrolled full-time and making satisfactory progress should complete this program in four quarters.

COSMETOLOGY

The field of cosmetology is based on scientific principles. The Cosmetology curriculum provides instruction and practice in manicuring, shampooing, permanent waving, facials, massages, scalp treatments, hair cutting and styling, and wig service.

Upon completion of this program and successful passing of a comprehensive examination administered by the North Carolina State Board of Cosmetic Arts, a license is given. The cosmetologist is called upon to advise men and women on problems of makeup and care of the hair, skin, and hands including the nails. Licensed cosmetologists may set up their own businesses or work in beauty salons, private clubs, department stores, or women's specialty shops.

COSMETOLOGY COURSE AND HOUR REQUIREMENTS

Title		C	L	CL/S _H	CH
MAJOR COURSES:					
COS	1101	Cosmetology I	0	0	40
COS	1102	Cosmetology II	0	0	40
COS	1103	Cosmetology III	0	0	40
COS	1104	Cosmetology IV	0	0	20
TOTAL CREDITS FOR DIPLOMA			0	0	140
TOTAL CREDITS FOR DIPLOMA					

Cooperative Education Work Experience not allowed

Students enrolled full-time and making satisfactory progress should complete this program in four quarters.

Evening students enrolled one half time may be enrolled in the following classes as a substitute for the stated courses and will need eight quarters for completion.

COS 1105 and 1106 series are the equivalent of COS 1101.

COS 1107 and 1108 series are the equivalent of COS 1102.

COS 1109 and 1110 series are the equivalent of COS 1103.

DIESEL MECHANICS/AGRICULTURAL SERVICING

The Diesel Mechanics/Agricultural Servicing curriculum provides emphasis on the diesel engines used in agricultural machinery, industrial equipment, and over-the-road vehicles. Theories of the various diesel engines, maintenance techniques, and troubleshooting are included indepth to assure the appropriate repair of the equipment to include servicing of agricultural equipment.

Graduates of this curriculum can quickly adapt themselves for employment in the areas of service and maintenance on equipment and vehicles used in construction, agriculture, and trucking. They make inspections and test to determine the cause of faulty operation and repair or replace defective parts to restore the gasoline or diesel powered equipment to proper operating condition.

DIESEL MECHANICS/AGRICULTURAL SERVICING COURSE AND HOUR REQUIREMENTS

Title		C	L	CL/SH	CH
MAJOR COURSES:					
PME	1030	Electrical Systems	3	0	3
PME	1040	Farm Harvesting Equipment	3	0	6
PME	1045	Equipment Servicing	3	0	12
PME	1105	Diesel Engines	5	0	6
PME	1106	Diesel Engines	1	0	6
PME	1126	Indus. Gasoline Engines	1	0	3
PME	1135	Basic Fuel Systems	3	0	3
PME	1136	Hydraulics	2	0	6
PME	1137	Power Trains	4	0	6
TOTALS		25	0	51	42
RELATED COURSES:					
AGR	119	Techniques of Welding	2	0	3
BUS	1103	Small Business Operations	3	0	0
MAT	100	Fundamentals of Mathematics	5	0	0
MEC	1147	Systems of Measurement and Measuring Tools	2	0	0
PME	1010	Air Conditioning	2	0	3
PME	1046	Shop Practices and Tool Operations	3	0	6
TOTALS		17	0	12	21
GENERAL EDUCATION:					
ENG	1101	Reading Improvements	2	0	0
ENG	1102	Communication Skills	3	0	0
ORI	100	New Student Seminar	1	0	0
SOC	100	Job Search & Career Planning	3	0	0
TOTALS		9	0	0	9
+ ELECTIVES		3	0	0	3
TOTAL CREDITS FOR DIPLOMA		54	0	63	75

If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091; MAT 099, 100R.

Students enrolled in this curriculum may select elective credits from approved courses and make course substitutions on a credit-for-credit basis upon approval by the student's department chair person.

+ Cooperative Education Work Experience: Up to 3 credit hours may be taken in lieu of electives.

Students enrolled full-time and making satisfactory progress should complete this program in four quarters.



ELECTRICAL INSTALLATION AND MAINTENANCE

The Electrical Installation and Maintenance curriculum is designed to provide a training program in the basic knowledge, fundamentals and practices involved in the electrical trades. A large segment of the program is laboratory and shop instruction designed to give the student practical knowledge and application experience in the fundamentals taught in class.

The graduate of this curriculum is qualified to enter an electrical trade as an on-the-job trainee or apprentice, assisting in the layout, installation, check out, and maintenance of systems in residential, commercial, or industrial settings.

ELECTRICAL INSTALLATION AND MAINTENANCE COURSE AND HOUR REQUIREMENTS

Title		C	L	CL/SH	CH
MAJOR COURSES:					
DFT	1113 Blueprint Reading and Sketching: Electrical	3	0	0	3
ELC	1101 Estimating For Electrical	2	0	0	2
ELC	1112 Direct and Alternating Current	5	0	12	9
ELC	113 AC and DC Machines and Controls	5	0	12	9
ELC	1114 Electrical Safety	1	0	0	1
ELC	1124 Residential Wiring	6	0	9	9
ELC	1125 Commercial and Industrial Wiring	5	0	12	9
ELN	1118 Industrial Electronics	3	0	6	5
ELN	1119 Industrial Electronics	3	0	6	5
TOTALS		33	0	57	52
RELATED COURSES:					
DFT	1110 Blueprint Reading: Building Trades	3	0	0	3
MAT	100 Fundamentals of Mathematics	5	0	0	5
MEC	1140 Hydraulic and Pneumatic Fundamentals	3	0	3	4
PHY	1101 Applied Science	3	2	0	4
TOTALS		14	2	3	16
GENERAL EDUCATION:					
ENG	1101 Reading Improvement	2	0	0	2
ENG	1102 Communication Skills	3	0	0	3
ORI	100 New Student Seminar	1	0	0	1
PSY	1101 Human Relations	3	0	0	3
TOTALS		9	0	0	9
TOTAL CREDITS FOR DIPLOMA		56	2	60	77

143

If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091; MAT 099, 100R.

Students enrolled in this curriculum may make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

+ Nine (9) credit hours from the following courses may be taken to substitute for ELC 1124 Residential Wiring: ELC 117, 1122, 1123, 1130.

ELC 1108 + 1109 are equivalent to 1112
ELC 1115 + 1116 are equivalent to 1113
ELC 1122 + 1123 are equivalent to 1124
ELC 1126 + 1127 are equivalent to 1125
ELC 1116 + 1117 are equivalent to 1118

++ Cooperative Education Work Experience: Up to 2 credit hours may be taken in lieu of ELC 1101.

Students enrolled full-time and making satisfactory progress should complete this program in four quarters.

ELECTRONIC SERVICING

The curriculum in Electronic Servicing is designed to provide basic knowledge and skills required in the installation, maintenance, and servicing of electronic components and systems. Laboratory time will be spent verifying electronic theory and principles, learning installation, maintenance, and service techniques.

An electronic service technician will be able to install, maintain, and service electronic equipment including radio, television, audio/video recording and playback equipment, home entertainment systems, digital electronic systems, master antenna television and cable television, components and systems.

ELECTRONIC SERVICING COURSE AND HOUR REQUIREMENTS

Title			C	L	CL/SH	CH
MAJOR COURSES:						
ELC	110	Direct Current Theory and Practice	5	0	12	9
ELC	1111	Alternating Current Theory and Practice	5	0	12	9
ELN	1103	Introduction to Electronic Devices	5	0	12	9
ELN	1104	Circuit Applications I	4	0	9	7
ELN	1105	Circuit Applications II	4	0	9	7
ELN	1106	Maintenance and Analysis of Electronic Systems	5	0	9	8
ELN	1108	Digital Concepts I	3	0	3	4
ELN	1110	Digital Concepts II	3	0	3	4
ELN	1111	Electronic Troubleshooting	3	0	0	3
ELN	1125	Radio Receiver Servicing	5	0	0	5
ELN	1127	Television Receiver Circuits and Servicing	10	0	18	16
TOTALS			52	0	87	81
RELATED COURSES:						
IAT	100	Fund. of Mathematics	5	0	0	5
IAT	1102	Algebra	5	0	0	5
IAT	1103	Basic Geometry & Trigonometry	5	0	0	5
TOTALS			15	0	0	15
GENERAL EDUCATION:						
ENG	1102	Communication Skills	3	0	0	3
RI	100	New Student Seminar	1	0	0	1
SY	1101	Human Relations	3	0	0	3
TOTALS			7	0	0	7
TOTAL CREDITS FOR DIPLOMA						
TOTAL CREDITS FOR ADVANCED DIPLOMA			74	0	87	103

students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
 ENG 091; 1101; MAT 099, 100R.

Students enrolled in this curriculum may make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

+ Cooperative Education Work Experience: Up to 3 credit hours may be taken in lieu of approved courses as indicated by a plus.

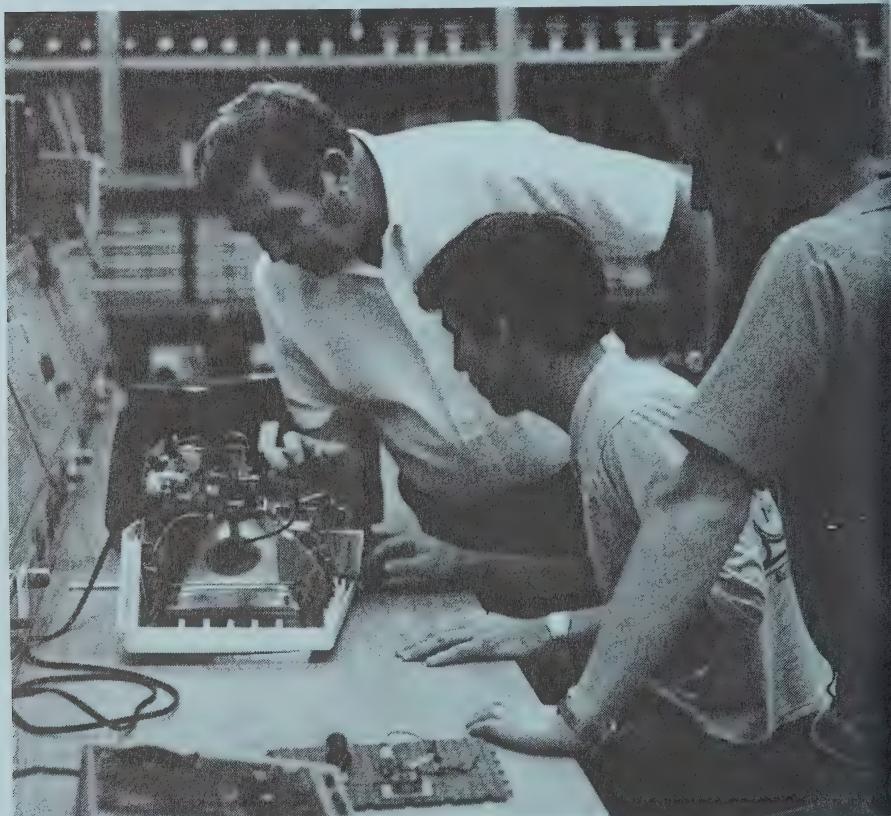
Students enrolled full-time and making satisfactory progress may complete the requirements for regular diploma in four quarters; advanced diploma requirements can be completed in seven quarter

**The following three (3) courses may be substituted for ELC 1110: ELC 1103, 1104, 1105.

**The following three (3) courses may be substituted for ELN 1103: ELN 1131, 1133, 1137.

**The following two (2) courses may be substituted for ELN 1108: ELN 1132, 1135.

**The following two (2) courses may be substituted for ELN 1110: ELN 1134, 1136.



INDUSTRIAL MAINTENANCE: ELECTROMECHANICAL

The curriculum in Industrial Maintenance prepares students to repair and maintain machinery, electrical wiring and fixtures, and hydraulic and pneumatic devices found in industrial establishments.

Industrial maintenance persons may be required to install, maintain and service mechanical equipment; follow blueprints and sketches; and use hand tools, metalworking machines, measuring instruments, and testing instruments. They operate metalworking machines such as the lathe, milling machine, and drill press to make repairs. They use the micro meter and calipers to verify dimensions. They assemble wires, insulation, and electrical components using hand tools and soldering equipment. They test electrical circuits and components to locate shorts, faulty connections, and defective parts. They inspect, test, and repair hydraulic equipment.

INDUSTRIAL MAINTENANCE: ELECTROMECHANICAL COURSE AND HOUR REQUIREMENTS

Title			C	L	CL/SH	CH
MAJOR COURSES:						
AHR	1102	Introduction to Cooling and Heating Systems	3	0	9	6
DFT	1113	Blueprint Reading and Sketching: Electrical	3	0	0	3
CLC	1112	Direct and Alternating Current	5	0	12	9
LC	1113	AC and DC Machines and Controls	5	0	12	9
SC	1101	Industrial Safety	3	0	0	3
IEC	1133	Electrical and Mechanical Maintenance	3	0	6	5
IEC	1134	Electrical and Mechanical Maintenance	3	0	6	5
IEC	1140	Hydraulics and Pneumatic Fundamentals	3	0	3	4
LU	1110	Plumbing Pipework	2	0	6	4
TOTALS			30	0	54	48
RELATED COURSES:						
US	1105	Industrial Organization	3	0	0	3
FT	1104	Blueprint Read: Mechanical	3	0	0	3
MAT	100	Fund. of Mathematics	5	0	0	5
HY	1101	Applied Science	3	2	0	4
WLD	1102	Basic gas Welding	0	0	3	1
WLD	1103	Basic Arc Welding	0	0	3	1
TOTALS			14	2	6	17
GENERAL EDUCATION:						
ENG	1101	Reading Improvement	2	0	0	2
ENG	1102	Communication Skills	3	0	0	3
RI	100	New Student Orientation	1	0	0	1
SY	1101	Human Relations	3	0	0	3
TOTALS			9	0	0	9
TOTAL CREDITS FOR DIPLOMA			53	2	60	74

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091; MAT 099, 100R.

Students enrolled in this curriculum may make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

+ Cooperative Education Work Experience: Up to 4 credit hours may be taken in lieu of approved courses as indicated by a plus.

*AHR 1103 and AHR 1104 are equivalent to AHR 1102.

Students enrolled full-time and making satisfactory progress should complete this program in four quarters.

MACHINIST

The Machinist curriculum gives individuals the opportunity to acquire basic skills and related technical information necessary to gain employment in the metalworking industries. The machinist is a skilled metalworker who shapes metal by using machine tools and hand tools. Machinists must be able to set up and operate the machine tools found in a modern shop. Computer Numerical Control (CNC) may be integrated into various phases of the the curriculum or as specialized courses.

The machinist is able to select the proper tools and materials required for each job and to plan the cutting and finishing operations in their proper order so that the work can be finished according to blueprints or written specifications. The machinist makes computations relating to dimensions of work, tooling, feeds, and speeds of machining. Precision measuring instruments are used to measure the accuracy of work. The machinist also must know the characteristics of metals so that annealing and hardening of tools and metal parts can be accomplished in the process of turning a block of metal into an intricate precise part.

MACHINIST COURSE AND HOUR REQUIREMENTS

ITLE		C	L	CL/SH	CH
MAJOR COURSES:					
FT	1104	Blueprint Reading: Mechanical	3	0	0
FT	1105	Blueprint Reading: Mechanical	3	0	0
EC	1101	Machine Shop Theory and Practice	3	0	12
EC	1102	Machine Shop Theory and Practice	3	0	12
EC	1103	Machine Shop Theory and Practice	3	0	12
EC	1104	Machine Shop and Theory and Practice	3	0	12
EC	1115	Metallurgy: Ferrous Metals	2	0	3
EC	1116	Metallurgy: Non-Ferrous Metals	2	0	3
EC	1170	Introduction to CNC Machining	1	2	0
EC	1171	Operation of Computer Numerical Control Machines	1	0	3
LD	1102	Basic Gas Welding	0	0	3
TOTALS		24	2	60	45
149					
RELATED COURSES:					
IC	1101	Industrial Safety	3	0	0
AT	100	Fund. of Mathematics	5	0	0
AT	1103	Basic Geometry and Trigonometry	5	0	0
AT	1123	Machinist Mathematics	3	0	0
HY	1101	Applied Science	3	2	0
TOTALS		19	2	0	20
GENERAL EDUCATION:					
NG	1102	Communication Skills	3	0	0
RI	100	New Student Seminar	1	0	0
Y	1101	Human Relations	3	0	0
TOTALS		7	0	0	7
+ FREE ELECTIVES		3	0	0	3
TOTAL CREDITS FOR DIPLOMA		53	4	60	75

Additional Major Courses (Advanced Diploma)

			C	L	CL/SH	CH
MEC	1107	Jigs and Fixtures	2	0	6	4
MEC	1123	Advanced Machine Set Up And Operation	2	0	6	4
MEC	1136	Computer Aided Machining	2	6	0	5
MEC	1172	Programming CNC Milling Operations	2	2	0	3
MEC	1182	Programming CNC Lathes	2	2	0	3
MEC	1227	Production Tooling	2	2	0	3
MEC	1270	CNC Lathe Operations	1	0	3	2
MEC	1272	CNC Milling Operations	1	0	3	2
		**Technical Elective	0	0	0	3
		TOTALS	14	12	18	29

Additional Related Courses (Advanced Diploma)

DFT	1151	Computer Aided Drafting	2	4	0	4
ISC	1105	Statistical Process Control Principles	3	0	0	3
		TOTALS	5	4	0	7

Total Credits for Advanced Diploma **72** **20** **78** **111**

*If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091; 1101; MAT 099, 100R.

Students enrolled in this curriculum may make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

+ Cooperative Education Work Experience: Up to 6 credit hours may be taken in lieu of approved courses as indicated by a plus.

Students enrolled full-time and making satisfactory progress should complete this requirement in four quarters.

**Recommended Technical Electives: COE; DFT 1106; MEC 1109, 1117, 1137, 1173, 1183, 1210, 1290.

***MEC 1165 and MEC 1166 are equivalent to MEC 1101.

MASONRY

The Masonry curriculum prepares individuals to work in the construction industry as bricklayers and masons. The mason must have a knowledge of basic mathematics, and blueprint reading and must also know the methods used in laying out a masonry job for residential, commercial, and industrial construction.

Masons are employed by contractors in the building construction field to lay brick and blocks made of tile, concrete, glass, gypsum or terra cotta. The mason is also capable of constructing or repairing walls, partitions, arches, sewers, furnaces, and other masonry structures.

MASONRY COURSE AND HOUR REQUIREMENTS

Title		C	L	CL/SH	CH
MAJOR COURSES:					
MAS	1101	Bricklaying I	5	0	15
MAS	1102	Bricklaying II	5	0	15
MAS	1103	Bricklaying III	5	0	15
MAS	1104	Bricklaying IV	4	0	15
MAS	1113	Masonry Estimating I	0	0	3
MAS	1114	Masonry Estimating II	0	0	3
TOTALS			19	0	66
RELATED COURSES:					
DFT	1110	Blueprint Reading: Building Trades	3	0	0
DFT	1111	Blueprint Reading and Sketching I	3	0	0
DFT	1112	Blueprint Reading and Sketching II	3	0	0
DFT	1114	Blueprint Reading and Sketching: Masonry	3	0	0
MAT	1111	Building Trades Mathematics: Masonry	3	0	0
MAT	1112	Building Trades Mathematics	3	0	0
MAT	1113	Building Trades Mathematics: Masonry	3	0	0
TOTALS			21	0	0
GENERAL EDUCATION:					
ENG	1101	Reading improvement	2	0	0
ENG	1102	Communication Skills	3	0	0
ORI	100	New Student Seminar	1	0	0
PSY	1101	Human Relations	3	0	0
TOTALS			9	0	9
TOTAL CREDITS FOR DIPLOMA			49	0	66
71					

If students, as a result of placement tests, are found to be deficient in English skills, they will be required to take ENG 091.

Students enrolled in this curriculum may make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

+ Cooperative Education Work Experience: Up to 1 credit hour may be taken in lieu of approved courses as indicated by a plus.

Students enrolled full-time and making satisfactory progress should complete this requirement in four quarters.



TEACHER ASSISTANT

The Teacher Assistant curriculum prepares individuals for work in assisting teachers. Individuals receive training in the areas of classroom procedures, preparation of educational material, and audiovisual aids, and typing.

Individuals will be qualified to prepare instructional material, to assist with physical education programs, to construct audiovisual aids, and to assist the teacher in the performance of general classroom duties. Employment opportunities exist with public school systems and with private schools.

TEACHER ASSISTANT COURSE AND HOUR REQUIREMENTS

Title			C	L	CL/SH	CH
MAJOR COURSES:						
EDU	102	Child Health, Safety & Nutrition	5	0	0	5
EDU	103	Preschool Orientation	1	0	6	3
EDU	104	Preschool Observation	1	0	6	3
EDU	106	Practicum in Elementary School	1	0	15	6
EDU	107	Practicum in Preschool Experiences	1	0	15	6
EDU	108	Early Childhood Curriculum	5	0	0	5
EDU	109	Guiding Young Children's Behavior	3	0	0	3
EDU	115	Audiovisual & Media Instruction	3	0	0	3
PSY	102	General Psychology	3	0	0	3
PSY	115	Child Growth & Development I	3	0	0	3
PSY	116	Child Growth & Development II	3	0	0	3
SOC	101	Introduction to Sociology	5	0	0	5
TOTALS			34	0	42	48
RELATED COURSES:						
BUS	102	Beginning Typewriting	2	3	0	3
MAT	100R	Computational Skills	5	0	0	5
SPH	150	Voice & Diction	3	0	0	3
TOTALS			10	3	0	11
GENERAL EDUCATION:						
ENG	101	Grammar and Comp. I	3	0	0	3
ENG	102	Grammar and Comp. II	3	0	0	3
ENG	103	Report Writing	3	0	0	3
ORI	100	New Student Seminar	1	0	0	1
TOTALS			10	0	0	10
+ ELECTIVE			2	0	0	2
TOTAL CREDITS FOR DIPLOMA			54	3	42	71

If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:

ENG 091, 092, 093, 094, 099, 100, 101a, 102A; MAT 099.

Students enrolled in this curriculum may make course substitutions from appropriate subject areas on a credit-for-credit basis upon approval by the student's department chairperson.

+ Cooperative Education Work Experience: Up to 4 credit hours may be taken in lieu of approved courses as indicated by a plus.

Students enrolled full-time and making satisfactory progress should complete this program in four quarters.

WELDING

The Welding curriculum gives students sound understanding of the principles, methods, techniques and skills essential for successful employment in the welding field and metals industry. Welders join metals by applying intense heat, and sometimes pressure to form a permanent bond between intersecting metals.

Welding offers employment in practically any industry: shipbuilding, automotive, aircraft, guided missiles, heavy equipment, railroads, construction, pipefitting, production shops, job shops, and many others.

WELDING COURSE AND HOUR REQUIREMENTS

Title			C	L	CL/SH	CH
MAJOR COURSES:						
WLD	1112	Mechanical Testing and Inspection	1	0	3	2
*WLD	1122	Commercial and Industrial Practices	3	0	9	6
WLD	1123	Inert Gas Welding	1	0	3	2
*WLD	1124	Pipe Welding	3	0	12	7
*WLD	1125	Certification Practices	3	0	6	5
*WLD	1141	Beginning Welding	5	0	15	10
*WLD	1142	Intermediate Welding	5	0	15	10
		TOTALS	21	0	63	42
RELATED COURSES:						
BUS	1105	Industrial Organization	3	0	0	3
DFT	1104	Blueprint Reading: Mechanical	3	0	0	3
DFT	1117	Blueprint Reading: Welding	3	0	0	3
MAT	1103	Basic Geometry and Trigonometry	5	0	0	5
MEC	1112	Machine Shop Processes	1	0	3	2
		TOTALS	15	0	3	16
						155
GENERAL EDUCATION:						
ENG	1101	Reading Improvement	2	0	0	2
MAT	100	Fund. of Mathematics	5	0	0	5
ORI	100	New Student Seminar	1	0	0	1
		TOTALS	8	0	0	8
		+ ELECTIVES	3	0	0	3
TOTAL CREDITS FOR DIPLOMA			47	0	66	69

If students, as a result of placement tests, are found to be deficient in math and English skills, they will be required to take the appropriate courses from the following list:
ENG 091; MAT 099, 100R.

Students enrolled in this curriculum may make course substitutions on a credit-for-credit basis upon approval by the student's department chairperson.

**WLD 1110 and 1111 are equivalent to WLD 1122

**WLD 1113 and 1114 are equivalent to WLD 1124

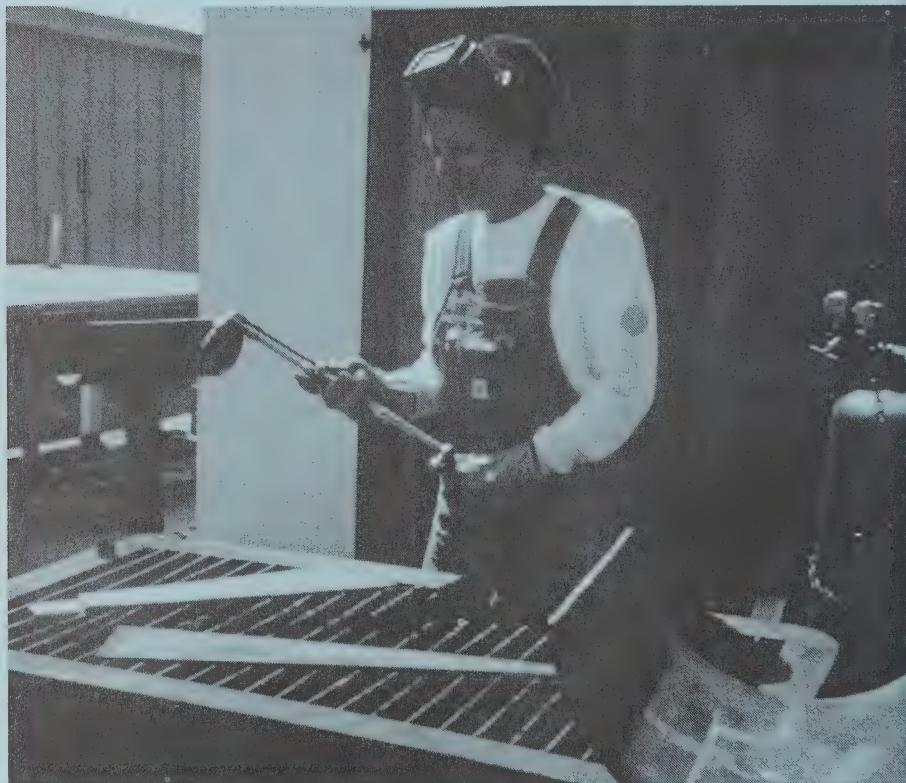
**WLD 1138 and 1139 are equivalent to WLD 1125

**WLD 1104, WLD 1105 and WLD 1106 are equivalent to WLD 1141

**WLD 1107, 1108 and 1109 are equivalent to WLD 1142.

+ Cooperative Education Work Experience: Up to 3 credit hours may be taken in lieu of approved courses as indicated by a plus.

Students enrolled full-time and making satisfactory progress should complete this program in four quarters.



BASIC LAW ENFORCEMENT TRAINING

The Basic Law Enforcement Training curriculum certificate program prepares individuals to take the Basic Training Law Enforcement Officers certification examination mandated by the North Carolina Criminal Justice Education and Training Standards Commission and/or it prepares individuals to take the Justice Officers Basic Training certification examination mandated by the North Carolina Sheriff's Education and Training Standards Commission. Successful completion of this curriculum certificate program requires that the student satisfy the minimum requirements for certification by the Criminal Justice Commission and the Sheriff's Commission. The student satisfactorily completing this program should possess at least the minimum degree of general attributes, knowledge, and skills to function as an inexperienced law enforcement officer.

Job opportunities are available with state, county, and municipal governments in North Carolina. In addition, knowledge, skills, and abilities acquired in this course of study qualifies one for job opportunities with private enterprises in such areas as industrial, retail, and private security.

BASIC LAW ENFORCEMENT TRAINING COURSE AND HOUR REQUIREMENTS

Title		C	L	CL/SH	CH
MAJOR COURSES:					
PSC	200	Basic Law Enforcement Training	14	2	24
TOTAL CREDITS FOR CERTIFICATE					
		14	2	24	23

COOPERATIVE EDUCATION NOT ALLOWED

Students should complete this program in one quarter or eleven weeks.

HOSPITAL WARD SECRETARY

The Hospital Ward Secretary (Clerk) curriculum is an eleven week or one quarter program designed to prepare an individual to perform a variety of clerical duties such as maintaining patients' charts, requesting equipment and services for patients, requesting supplies and equipment for the nursing unit, and completing forms correctly.

Employment opportunities are available in doctors' offices, clinics, hospitals and other health agencies as hospital ward clerks or hospital ward secretaries.

HOSPITAL WARD SECRETARY COURSE AND HOUR REQUIREMENTS

Title	C	L	CL/SH	CH
MAJOR COURSES:				
MED 1100 Hospital Ward Secretary: Theory and Practice	12	0	12	16
RELATED COURSES:				
PSY 104 Human Relations	3	0	0	3
GENERAL EDUCATION:				
ENG 1102 Communication Skills	3	0	0	3
TOTAL CREDITS FOR CERTIFICATE		18	0	12
COOPERATIVE EDUCATION NOT ALLOWED				

Students should complete this program in one quarter or eleven weeks.

NURSING ASSISTANT

The Nursing Assistant curriculum prepares graduates to assist registered and practical nurses and physicians in carrying out nursing care and services to patients. The nursing assistant performs simple health care procedures such as bathing and feeding patients, providing comfort measures, positioning patients, preparing patients for physical examinations and special tests, observing and recording vital signs, admitting, transferring and discharging patients, and collecting specimens.

Graduates may be employed in hospitals, clinics, doctors' offices, nursing homes and extended care facilities.

Individuals desiring a career in nursing assistant should, if possible, take English, biology and social science courses prior to entering the program.

NURSING ASSISTANT COURSE AND HOUR REQUIREMENTS

Title	C	L	CL/SH	CH
MAJOR COURSES:				
NUR 1100 Nursing Assistant Theory And Practice	8	8	12	16
TOTAL CREDITS FOR CERTIFICATE	8	8	12	16

Cooperative Education Not Allowed

Student should complete this program in one quarter or eleven weeks.



SURVEYING (TECHNICAL SPECIALTY)

The Surveying (Technical Specialty) curriculum is designed for persons interested in learning to assist surveyors or engineers in land, forest, highway, marine, and other types of surveying. The emphasis of the program may be adapted by choice of electives. A certificate is awarded to students completing the program.

The graduates of this program will be prepared to determine exact location and measurements of points, elevations, lines, areas, and contours of the surface of the earth for construction, map making, land valuation, mining, or other purposes. They may calculate information needed to conduct surveys from notes, maps, deeds, or other records. They will use surveying instruments and perform calculations to verify the accuracy of survey data.

SURVEYING (TECHNICAL SPECIALTY) COURSE AND HOUR REQUIREMENTS

Title		C	L	CL/SH	CH
BASIC COURSES:					
CIV	101	Surveying	2	0	6
CIV	102	Surveying	2	0	6
CIV	103	Surveying	2	0	6
CIV	204	Surveying	2	0	6
DFT	101	Technical Drafting	1	0	3
MAT	101	Algebra I	5	0	0
MAT	102	Trigonometry	5	0	0
TOTAL CREDITS FOR CERTIFICATE			19	0	27
					28

Students enrolled in the evening and taking one course should complete this program in seven quarters.

Students who wish to acquire additional surveying skills may take any of the following courses:

160	CIV	110	Surveyor Practices	1	0	0	1
	CIV	223	Codes, Contracts, and Specifications	2	0	0	2
	FOR	208	Forest Surveying	2	0	3	3
	MAT	103	Algebra II	5	0	0	5



Course Descriptions



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ACCOUNTING

ACT 150 Principles of Accounting **3 2 0 4**

Prerequisites: MAT 110, or permission of instructor

Corequisites:

Basic accounting concepts as applied to a single proprietorship. Practical problems requiring the use of journals and general ledgers, preparation and analysis of work sheets, the balance sheet, and income statements. Introduction to basic concepts of internal control included.

ACT 151 Principles of Accounting **3 2 0 4**

Prerequisites: ACT 150

Corequisites:

An expanded study of the accounting cycle with emphasis on the recording, summarizing, and interpreting of data for management control. Includes a study of payrolls, federal and state taxes, and basic applications for computerized accounting.

ACT 152 Principles of Accounting **3 2 0 4**

Prerequisites: ACT 151

Corequisites:

Partnership and corporation accounting, including a study of financial statement analysis and use of financial ratios.

AGRICULTURE

AGR 100 Introduction to Agriculture **1 0 0 1**

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Prerequisites:

Corequisites:

General study of the importance of agriculture to the state, nation, and world. Topics include the history of agriculture, world food-population problem, farm organizations, agricultural cooperatives, government agencies, and past and present agricultural policy. The Postsecondary Agricultural Student Organization is also introduced.

AGR 103 Feeding and Management **3 0 0 3**

Prerequisites:

Corequisites:

Study of applied principles and concepts of animal nutrition. Problems associated with feeding livestock, nutritional diseases, balancing rations, feed additives, feedstuffs, and anatomy and physiology of the digestive systems of farm animals. Includes management and economic problems associated with the feeding and marketing of livestock.

AGR 105 Pastures and Forage Crops **3 0 0 3**

Prerequisites:

Corequisites:

Study of the major grasses and legumes of economic importance in North Carolina. Attention given to management, soil types, fertilization, harvesting, and nutrient value.

					Clinical/Credit
		Class	Lab	Shop	Hours
AGR 107 Farm Enterprise Management		3	0	0	3
Prerequisites:					
Corequisites:					
Introduces accounting methods related to farm enterprises and acquaints students with the terminology and basic principles and techniques used in recording transactions. Practical application of the principles learned by working with actual farm situations. Includes economic principles as applied to the decision making process in the analysis of farm records.					
AGR 112 Small Engine Repair		2	2	0	3
Prerequisites:					
Corequisites:					
Study of two- and four-cycle, one-cylinder gasoline engines and their power trains. Students taught preventive maintenance, troubleshooting, and repair of the typical auxiliary engine on the farm.					
AGR 116 Farm Welding		2	2	0	3
Prerequisites:					
Corequisites:					
Introduces welding safety and principles of oxyacetylene and electrical welding, cutting, and brazing. Procedures and experience in using arc and oxyacetylene welding equipment. Brief study of metals, rods, gases, and special welding machinery.					
AGR 119 Techniques of Welding		2	0	3	3
Prerequisites:					
Corequisites:					
Study of principles of oxyacetylene and electrical welding, cutting, brazing, principles, procedures, safety precautions, and experience in using oxyacetylene and arc welding equipment; projects to develop skill in the use of equipment. Also includes a study of metals, rods, gases, and special electrical welding machinery.					
AGR 121 Crop Production		3	0	0	3
Prerequisites:					
Corequisites:					
Study of the characteristics of field crops relative to varieties, environmental factors, rotations, fertilization, control of pests, and cultural practices pertinent to crop production.					
AGR 125 Animal Science		5	2	0	6
Prerequisites:					
Corequisites:					
Introductory animal science course covering the financial principles of livestock production. Study of the animal body and the basic principles of reproduction, genetics, growth, fattening, and digestion; and of the selection, feeding, improvement, processing, and marketing of livestock.					
AGR 127 Animal Nutrition		3	0	0	3
Prerequisites:					
Corequisites:					
Deals with the principles of nutrition and their application to feeding practices in cattle, horses, sheep, and swine production in North Carolina.					

				Clinical/Credit
		Class	Lab	Shop Hours
AGR 128 Farm and Home Construction		2	2	0
Prerequisites:				
Corequisites:				
Deals with the fundamentals of farm carpentry, fences, concrete, and masonry. Part of the course gives students an opportunity to learn and practice home construction projects such as farm utility buildings. Also includes a study of farm water needs and waste disposal. Attention is given to planning farm water and plumbing systems and their proper care and maintenance.				
AGR 135 Agricultural Law		3	0	0
Prerequisites:				
Corequisites:				
Designed to acquaint the agricultural student with certain fundamentals and principles of law, including contracts, agency, and negotiable instruments. Includes the general study of law pertaining to partnership, corporation, sales, suretyship, bailments, and real property.				
AGR 136 Agricultural Mathematics		3	0	0
Prerequisites:				
Corequisites:				
Stresses the fundamental mathematics operations and their application to business problems. Topics covered include payrolls, price marking, interest and discount, commission, taxes, and pertinent use of mathematics in the field of business.				
AGR 149 Introduction to Plant Science and Horticulture		3	0	0
Prerequisites:				
Corequisites:				
Introduction to botany as applied to higher plants. The fundamental principles of plant processing, reproduction (sexual and asexual), growth, and development. Application of plant processes to certain commercially grown field and horticultural crops.				
164				
AGR 150 General Horticulture		3	0	0
Prerequisites:				
Corequisites:				
Deals with horticultural principles and the application of plant science fundamentals to horticultural practices.				
AGR 154 Swine Production		3	0	0
Prerequisites:				
Corequisites:				
Study of the scientific methods of selecting, breeding, feeding, and managing swine. Special attention is given to housing and marketing.				
AGR 165 Crop Science		3	0	0
Prerequisites:				
Corequisites:				
Study of the distribution, classification, growth, structure, and reproduction of field crops. Topics include the world food/population problems and environmental factors and cultural practices involved in crop production. Emphasis on economically important crops in North Carolina.				

				Clinical/Credit
	Class	Lab	Shop	Hours
AGR 167 Small Scale Vegetable Production	3	0	0	3

Prerequisites:

Corequisites:

Study of common local vegetables. Course will stress production practices including soils and soil amendments, planning, fertilization, and disease, weed, and insect control of garden vegetables. Topics also include growing vegetable transplants and marketing alternatives. Intended for urban and small rural gardeners.

AGR 170 Plant Science	5	2	0	6
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Prerequisites:

Corequisites:

Introductory general botany course. Covers plant classification, internal and external structure, respiration, photosynthesis, nutrition, plant growth substances, reproduction, and factors affecting plant growth. Course series of AGR 149 and AGR 150 is equivalent and will substitute.

AGR 185 Soil Science and Fertilizers	5	2	0	6
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Prerequisites:

Corequisites:

Deals with the basic principles of efficient classification, evaluation, and management of soils; care, cultivation and fertilization of the soil; and conservation of soil fertility. Course series of AGR 187 and AGR 190 is equivalent and will substitute.

AGR 187 Fertilizers and Lime	3	0	0	3
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Prerequisites:

Corequisites:

Review of the source, function, and use of the major and minor plant food elements; commercial fertilizer ingredients; soil acidity and liming materials; and the application of fertilizer and liming materials.

AGR 190 Soils and Soil Fertility	2	2	0	3	165
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Prerequisites:

Corequisites:

Deals primarily with physical and chemical properties of soils in coastal and piedmont North Carolina. Includes the function and use of major and minor plant food elements and liming materials.

AGR 195 Cultural and Irrigation Practices	3	0	0	3
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Prerequisites:

Corequisites:

Deals with various tillage and cultural practices such as conventional, "no-till," and minimum tillage; the economical aspects of labor and fuel efficiency; and drainage and timely application of supplemental water to obtain maximum output.

AGR 198 Practical Application of Agricultural Chemicals	2	2	0	3
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Prerequisites:

Corequisites:

Study of farm chemicals and fertilizers—their importance, ingredients, and formulation and the equipment involved in application. Special emphasis on practical farm application.

AGR 201 Agricultural Chemicals Pesticides **3 0 0 3**

Prerequisites:**Corequisites:**

Study of agricultural chemicals and their importance; the ingredients, formulation, and application of farm chemicals; and the effective and safe utilization of chemicals in agricultural pest control. Major emphasis is placed on insecticides, fungicides, nematocides, herbicides, and other commonly used pesticides.

AGR 203 Pesticide and Fertilizer Application **3 2 0 4**

Prerequisites:**Corequisites:**

Study of and practical exercise in the correct application of pesticides and fertilizers. Economics of custom application and equipment, precautions, and legal aspects of application are presented.

AGR 204 Agricultural Economics and Farm Record **3 2 0 4**

Prerequisites:**Corequisites:**

Introduction to economics, the functions of the economic system, and agriculture's role in the economy. Economic principles as applied to the decision-making process in the analysis of farm records are also included.

AGR 205 Agricultural Marketing **3 2 0 4**

Prerequisites:**Corequisites:**

Analysis of the functions of marketing in the economy; a survey of the problems marketing faces; and a review of the market structure and the relationship of local, terminal, wholesale, retail, and foreign markets. Problem in the operations of marketing firms, including buying and selling, processing, standardization and grading, risktaking and storage, financing, efficiency, and cooperation; and discussions of procedures for marketing commodities such as grain, cotton, livestock, and tobacco are included.

AGR 206 Marketing Farm Products **3 0 0 3**

Prerequisites:**Corequisites:**

Looks at the market structure including local, terminal, wholesale, and retail markets. Emphasis on the marketing of grain, tobacco, soybeans, swine, beef, and poultry. Includes study of hedging and futures markets as a management tool.

AGR 207 Poultry Enterprises **3 0 0 3**

Prerequisites:**Corequisites:**

Review of the growth of the various poultry enterprises including market eggs, hatching eggs, and broiler production; marketing procedures; determining and controlling costs of production; choosing breeds and determining flock size, feeding systems, conversion ratios, labor efficiency, and other management factors.

AGR 215 Farm Machinery Repair and Maintenance **2 2 0 3**

Prerequisites:**Corequisites:**

Selection, care, and repair of large units of farm equipment and operating principles of self-propelled and tractor-drawn equipment studied in the classroom and in the field. Equipment such as balers, combines, corn pickers, cotton pickers, and peanut harvesters included in the study.

					Clinical/Credit
		Class	Lab	Shop	Hours
AGR 218 Agricultural Mechanization		3	0	0	3
Prerequisites:					
Corequisites:					
Study of farm machinery management, laborsaving devices, and the economics of selection and operation of farm machinery. Includes study and evaluation of feed grinders and mixers, storage facilities, materials handling systems, and other laborsaving devices.					
AGR 222 Farm Electrification		2	2	0	3
Prerequisites:					
Corequisites:					
Study of the basic principles and systems of farm electrification and their application to agricultural production, with emphasis on equipment for controlling the utilization of electricity.					
AGR 223 Livestock Production		3	0	0	3
Prerequisites:					
Corequisites:					
Study of the basic principles of livestock production, including the breeding, feeding, care, and management of farm animals.					
AGR 224 Agricultural Pollution Prevention and Management		2	2	0	3
Prerequisites:					
Corequisites:					
Topics include soils, control of animal wastes, pesticides, fertilizer runoff, stream sedimentation, and the use of land for disposal of municipal wastewater. Emphasis on livestock waste management. Presents state and federal regulations governing agricultural pollution.					
AGR 225 Agricultural Pollution Control		3	2	0	4
Prerequisites:					
Corequisites:					
Study of the relationship between agriculture and environmental pollution. Topics covered include soils, control of animal wastes and feedlot management, pesticide use and misuses, biological control of agricultural pests, fertilizer runoff and control, stream sedimentation, the use of land for disposal of municipal wastewater, and state and federal regulations related to agricultural pollution.					
AGR 227 Beef Production		3	0	0	3
Prerequisites:					
Corequisites:					
Study of beef production including the selection, breeding, feeding, care, and management of a beef herd. The economical aspects of various systems of beef production.					
AGR 230 Plant Diseases		3	0	0	3
Prerequisites:					
Corequisites:					
Study of the germ theory of disease as it applies to plants and crop production. Includes common plant diseases and symptoms and methods of prevention and control.					

				Clinical/Credit Hours
		Class	Lab	Shop
AGR 235	Animal Diseases	3	0	0 3
Prerequisites:				
Corequisites:				
Study of the common livestock and poultry diseases and symptoms. Presents the latest advances in disease control methods with emphasis on preventive measures, including antibiotics and feed supplements.				
AGR 240	Insects of Agronomic Crops	2	2	0 3
Prerequisites:				
Corequisites:				
Study of common local crop insects—their economic importance, identification, life cycles, and hosts. Field trips used to determine the levels of economic damage and identify the causative insects.				
AGR 245	Crop Insects	3	2	0 4
Prerequisites:				
Corequisites:				
Study of common crop insects, their economic importance, identification, life cycles, and hosts. Field trips to study insect damage to crops in the area.				
AGR 247	Pesticides and Their Use in Home and Community	3	2	0 4
Prerequisites:				
Corequisites:				
Study of the use of pesticides including their function, ingredients, beneficial aspects, and environmental hazards, with major emphasis on safe application and handling. Biological and other alternative methods of pest control are studied.				
AGR 254	Plant Propagation	3	0	0 3
Prerequisites:				
Corequisites:				
Study of basic concepts and principles of sexual and asexual propagation. Techniques are learned through practical exercises conducted in laboratory sessions. Emphasis is given to those propagation methods widely utilized in the industry.				
168				
AGR 255	Landscaping Principles and Practices	3	2	0 4
Prerequisites:				
Corequisites:				
A study of the basic principles of landscape design. Includes selection and placement of plants and structures, preliminary sketches, planting, fertilization, and pruning. Emphasis placed on site plans for residences.				
AGR 260	Residential Landscaping	2	2	0 3
Prerequisites:				
Corequisites:				
Introduces basic landscape concepts and focuses on designing landscapes as extensions of indoor activities. Special emphasis on residential site planning and design. Requires students to complete a simple landscape design on paper.				
AGR 272	Tobacco Production	3	0	0 3
Prerequisites:				
Corequisites:				
Review of the economic importance of tobacco in North Carolina, detailed study of certain aspects of the production and marketing of tobacco, and brief look at the processing and manufacturing phases.				

				Clinical/Credit
	Class	Lab	Shop	Hours
AGR 273 Corn Peanut and Soybean Production	3	0	0	3

Prerequisites:

Corequisites:

Production, marketing, and improvement of corn, peanuts, and soybeans are covered in this course. The latest research information on seed varieties, fertilization, disease, weed control, cultural practices, equipment, harvesting, and marketing are stressed.

AGR 275 Introduction to Weed Identification and Control	2	2	0	3
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Prerequisites:

Corequisites:

Study of the identification and control of common weeds in locally grown crops. Emphasis on weed control in corn, soybeans, and tobacco.

AGR 278 Weed Identification and Control	3	2	0	4
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Prerequisites:

Corequisites:

Study of identification and control of annual and perennial weeds of economic importance in North Carolina.

AGR 279 Farm Forestry	3	2	0	4
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Prerequisites:

Corequisites:

Deals with the fundamentals of forestry and farm forestry problems, including planting, thinning, protecting, harvesting, and marketing.

AGR 280 Farm Forestry Management	2	2	0	3
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Prerequisites:

Corequisites:

Study of maintaining, harvesting, and planting local forest trees with an emphasis on tree farms and the economics of tree farming.

AGR 285 Introduction to Soil and Water Conservation	3	0	0	3
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Prerequisites:

Corequisites:

Study of the physical properties of soils and the processes of erosion. Includes methods of preventing and controlling soil erosion and an understanding of the principles involved in controlling excess water.

AGR 290 Soil and Water Conservation	3	2	0	4
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Prerequisites:

Corequisites:

Introduction to soil, water, and plant conservation; the available resources to carry out soil and water conservation measures; and the relationship of specialized knowledge in agronomy, economics, engineering, soils, forestry, and recreation.

AGR 296 Agricultural Programs and Agencies	3	0	0	3
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Prerequisites:

Corequisites:

Preview of public agricultural programs and agencies that provide services for agricultural producers, including their objectives, organization, functions, and services.

AGR 297 Agricultural Policy and Programs 3 0 0 3

Prerequisites:

Corequisites:

Concerned with the processes of agricultural policy formation in a democratic society and the role of individual and group actions in the development of public programs. Policies and programs are analyzed, including the relationship to demand, supply, income, population, the nature of agricultural production, and social welfare.

AIR CONDITIONING, HEATING, AND REFRIGERATION

AHR 101 Air Conditioning and Refrigeration 3 0 3 4

Prerequisites:

Corequisites:

Introduction to the air conditioning and refrigeration field and to terminology relating to heating and cooling systems. Topics included are the basic laws of refrigeration, heat and heat transfer methods, servicing tools and equipment, and tubing and fittings. Shop practice will be given in operations such as tube bending, flaring swaging, and soldering.

AHR 106 Architectural Mechanical Equipment 3 0 0 4

Prerequisites:

Corequisites:

General study of heating, air conditioning, plumbing, and electrical equipment, materials, and symbols, and building code requirements pertaining to residential and commercial structures. Reading and interpretation of working drawings prepared by mechanical engineers and coordination of mechanical and electrical features with structural and architectural designs are included.

AHR 201 Principles of Heating 3 0 3 4

Prerequisites:

Corequisites:

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Warm air systems, heat emitter, electric heating, forced hot water and steam heating systems, including selection and sizing of equipment such as registers, grills, furnaces, boilers, radiators, baseboards, piping, and ducts. Heating layout and specifications for an existing structure or one in blueprint stage will be prepared.

AHR 1101 Automotive Air Conditioning 3 0 6 5

Prerequisites:

Corequisites:

General introduction to the principles of refrigeration. Includes a study of the assembly of the components and connections necessary in the mechanisms, methods of operation and control, proper handling of refrigerants in charging the system, use of testing equipment in diagnosing trouble, and efficiency tests and general maintenance work.

AHR 1102 Introduction to Cooling and Heating Systems 3 0 9 6

Prerequisites:

Corequisites:

Covers the basic principles of cooling and heating related to industrial systems. Air conditioning, refrigeration, and heating systems are studied as well as fluid flow, air distribution, and control systems. Special industrial cooling and heating systems are included.

				Clinical/Credit
	Class	Lab	Shop	Hours
AHR 1103 Introduction to Cooling Systems	2	0	6	4

Prerequisites:

Corequisites:

Covers the basic principles of cooling related to residential and industrial systems. Air conditioning and refrigeration systems are studied as well as fluid flow, air distribution, and control systems. AHR 1103 and AHR 1104 are equivalent to AHR 1102.

AHR 1104 Introduction to Heating Systems	1	0	3	2
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Prerequisites:

Corequisites:

Covers the basic principles of heating systems related to residential and industrial systems including oil, gas, and electric. AHR 1103 and AHR 1104 are equivalent to AHR 1102.

AHR 1107 Gas Laws Refrigeration	2	0	3	3
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Prerequisites:

Corequisites:

Terminology, laws of refrigeration, absolute pressure and absolute temperature, energy conversion units; specific heat; latent heat, and sensible heat; measurement of heat in quantity and intensity; tone of refrigeration, pressure temperature relationship; transfer of heat by conduction, convection, and radiation.

AHR 1115 Fundamentals of Heating	2	0	6	4
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Prerequisites:

Corequisites:

An introduction to the fundamentals of heating and heat transfer related to various types of heating systems. The user and care of tools, using instruments to measure combustion efficiencies, and installing equipment and ductwork to make up a heating system are covered. Also introduced are comfort surveys, heat loss and gain, equipment selection and maintenance, solar heating, and heat distribution systems.

AHR 1117 Principles of Air Conditioning I	2	0	6	4
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Prerequisites:

Corequisites:

Course covers various heating, cooling and ventilating systems, and the investigation and control of factors affecting air cleaning, movement, temperature, and humidity. AHR 1117 and AHR 1118 are equivalent to AHR 1123.

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AHR 1118 Principles of Air Conditioning II	1	0	6	3
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Prerequisites:

Corequisites:

Course covers psychrometric charts in determining equipment needs to produce optimum temperature and humidity control. Air conditioning equipment is selected, assembled, installed, wired, calibrated, and tested. Sizing, installing and balancing of duct work is performed as needed. AHR 1117 and AHR 1118 are equivalent to AHR 1123.

AHR 1119 Principles of Refrigeration I	2	0	6	4
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Prerequisites:

Corequisites:

An introduction to the principles of refrigeration. Terminology and the use and care of tools and equipment. Practical work with hand tools and materials is given to develop basic skills in the operation of refrigeration systems. Standard procedures and safety measures are stressed. AHR 1119 and AHR 1120 series is equivalent to AHR 1121.

				Clinical/Credit
	Class	Lab	Shop	Hours

AHR 1120 Principles of Refrigeration II

1 0 6 3

Prerequisites: AHR 1119

Corequisites:

Further study of the principles of refrigeration. Terminology and identification and the function of the component parts of refrigeration systems are covered. Practical work with piping and duct work is given to develop basic skills in the installation of refrigeration systems. Standard procedures and safety measures are stressed. AHR 1119 and AHR 1120 series is equivalent to AHR 1121.

AHR 1121 Principles of Refrigeration

3 0 12 7

Prerequisites:

Corequisites:

An introduction to the principles of refrigeration. Terminology, the use and care of tools and equipment, and the identification and the function of the component parts of refrigeration systems are covered. Practical work with hand tools, materials, piping, and ductwork is given to develop basic skills in the installation of refrigeration systems. Standard procedures and safety measures are stressed.

AHR 1122 Domestic and Commercial Refrigeration

3 0 6 5

Prerequisites: AHR 1121

Corequisites:

Domestic refrigeration servicing of conventional and hermetic systems. Cabinet care, controls, and system maintenance in window air conditioning units and domestic refrigerators and freezers are stressed. Commercial refrigeration servicing of display cabinets, walk-in cooler and freezer units, and mobile refrigeration systems are studied. Manufacturer's catalogs are used in sizing and matching system components and a study of controls, refrigerants, heat reclamation maintenance, and servicing methods is made. The American Standard Safety Code for Refrigeration is studied and its principles practiced.

AHR 1123 Principles of Air Conditioning

3 0 12 7

Prerequisites:

Corequisites:

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Includes a study of the selection of various heating, cooling, and ventilation systems and the investigation and control of factors affecting air cleaning in air movement, temperature, and humidity. Psychometric charts are used in determining optimum temperature and humidity control. Commercial air conditioning equipment is assembled and tested. Practical sizing and balancing of duct work is performed as needed.

AHR 1124 Air Conditioning, Heating, and Refrigeration

3 0 6 5

Prerequisites: AHR 1123

Corequisites:

Emphasis is placed on the maintenance and servicing of equipment used in the cleaning, changing, humidification and temperature control of air in an air conditioned space. Shop work involves locating and correcting equipment failures and controlling, testing, and adjusting heating and cooling equipment to maximize energy conservation.

AHR 1126 All Year Comfort Systems

3 0 6 5

Prerequisites: AHR 1123, 1128

Corequisites:

Equipment used to provide heating and cooling for "all year" comfort will be studied. Included will be heat pumps, oil-fired, gas-fired, water-circulating, electric-resistance and solar heating and cooling systems. Specialized controls required for all year comfort systems, preventive maintenance, and balancing are included in the course.

				Clinical/Credit
	Class	Lab	Shop	Hours
AHR 1128 Automatic Controls	3	0	6	5

Prerequisites: ELC 1102; AHR 1122

Corequisites:

Types of automatic controls and their function in heating and cooling systems. Included in the course will be electric, electronic, mechanical, and pneumatic controls for domestic and commercial heating and cooling along with zone controls, unit heater and ventilator controls, commercial fan system controls, commercial refrigeration controls, and radiant panel controls.

BANKING AND FINANCE

AIB 111 Business Administration	4	0	0	4
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Prerequisites:

Corequisites:

Emphasis placed on the managerial responsibility of coordinating carefully the many facets of a business enterprise. Also stresses the background of administration, financial management, production, labor-management relations, marketing, coordination and control, and public relations problems.

AIB 120 Accounting I	4	0	0	4
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Prerequisites:

Corequisites:

Comprehensive treatment of all up-to-date principles giving the student ample opportunity through examples illustrations, and correlated activities to learn how the principles are applied. End-of-unit summaries have special sections for both principles and managerial implications.

AIB 121 Accounting II	4	0	0	4
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Prerequisites:

Corequisites:

Content of this course selected with two major objectives in mind: immediate on-the-job usefulness and contribution to the student's future growth in the banking field. Consists of a detailed study of balance sheet items, covers manufacturing accounting and production costing, and includes an appropriate study of cost analysis for managerial decisions.

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AIB 122 Fundamentals of Bank Data Processing	4	0	0	4
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Prerequisites:

Corequisites:

This course is designed for non-data processing personnel at any level who would like a general understanding of data processing principles and their banking applications. The course presents the concepts of data processing and the basic functions of computers using analogies and illustrations from the banking industry. It discusses present and future bank applications of data processing, including MICR and EFTS.

AIB 123 Financing Business Enterprise	4	0	0	4
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Prerequisites:

Corequisites:

Stress is placed on the difference between lending and investing, and on the fact that investing in a corporation and financing a corporation are different aspects of the same subject. Material is presented from the viewpoint of the corporate treasurer who must safeguard the financial future of the corporation.

				Clinical/Credit Hours
	Class	Lab	Shop	
AIB 202 Principles of Bank Operation	4	0	0	4

Prerequisites:

Corequisites:

Fundamentals of bank functions in a descriptive fashion so that the beginning banker may view the profession in a broad (and operational) perspective. The descriptive orientation is intentional. Banking is increasingly dependent upon personnel who have the broad perspective so necessary for career advancement.

AIB 203 Bank Investments	4	0	0	4
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Prerequisites:

Corequisites:

This course describes the nature of funds and how their uses are determined. It also analyzes the primary and secondary reserve needs of commercial banks, the sources of reserves, and their random and cyclical fluctuations, showing the influence of these factors on investment policy. This analysis is followed by a study of yield changes as they affect a bank's long-term holdings.

AIB 204 Bank Management by Objectives	0	2	0	1
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Prerequisites:

Corequisites:

Middle management seminar designed to assist bank officers in learning how to translate bank problems into realistic goals for the individual and the bank through the management-by-objectives system. Cases and outside readings are used in this seminar. It can be presented as a brief, intense workshop or an eight-session seminar.

AIB 205 Bank Management	4	0	0	4
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Prerequisites:

Corequisites:

Philosophy and practice of management. The study and application of the principles outlined provide new and experienced bankers with a working knowledge of bank management.

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AIB 206 Bank Letters and Reports	4	0	0	4
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Prerequisites:

Corequisites:

Designed for those bank officers, supervisors, and employees who dictate or review correspondence. Since bank letters are actually public relations documents, all persons should be familiar not only with the mechanical forms of bank letters, but also with the psychological principles that help the letter writer achieve best results. Reviews letter forms, emphasizes fundamental principles underlying modern correspondence, and examines different kinds of bank letters.

AIB 207 International Banking	4	0	0	4
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Prerequisites:

Corequisites:

Introduction to a vast field for those involved in the domestic activities of their banks. Presents the basic framework and fundamentals of international banking, how money is transferred from one country to another, how trade is financed, what the international agencies are and how they supplement the work of commercial banks, and how money is changed from one currency to another.

			Clinical/Credit
	Class	Lab	Shop Hours

AIB 208 Conference Planning and Leadership 0 2 0 1

Prerequisites:

Corequisites:

Centered on a specific phase of the problem of human understanding. The course is concerned with an important responsibility of management: to communicate and to coordinate ideas in the most effective way possible. Consideration is given to the dynamics of human interaction in groups convened to solve problems and make decisions. The essentials of parliamentary procedure are also stressed, thus presenting an effective technique for achieving consensus and formalizing and recording the decision-making process.

AIB 209 Installment Credit 4 0 0 4

Prerequisites:

Corequisites:

Techniques of installment lending presented concisely. Emphasis is placed on establishing the credit, obtaining and checking information, servicing the loan, and collecting the amounts due. Each phase of a bank's installment credit operation should be carefully scrutinized to be certain that the most efficient methods are employed, for only through an efficient operation can a bank maximize its profits on this particular kind of credit. Other topics discussed are inventory financing, special loan programs, business development and advertising, and the public relations aspect of installment lending.

AIB 210 Money and Banking 4 0 0 4

Prerequisites:

Corequisites:

Stresses the practical aspects of money and banking and emphasizes the basic monetary theory needed by the banking student to apply his knowledge to his particular job. Historical treatment kept to a minimum. Emphasis is also placed on such problems as economic stabilization, types of spending, the role of gold, limitations of central bank control, government fiscal policy, balance of payments, and foreign exchange, showing their repercussions on the banking industry in affecting yield curves and structuring of portfolios.

AIB 212 Planning Management Development 0 2 0 1

Prerequisites:

Corequisites:

Middle management seminar designed to assist bank officers who are responsible for the planning, recruiting, and development of bank management personnel. Cases and outside readings are used. It can be presented as a brief, intensive workshop or as a twelve-session seminar.

AIB 213 Trust Functions 4 0 0 4

Prerequisites:

Corequisites:

Presents a complete picture of the services rendered by institutions engaged in trust business. Providing an introduction to the services and duties involved in trust operations, the course is intended for all bankers, not just those who are engaged in trust business. It endeavors to keep clear the distinction between business and legal aspects of trust functions.

AIB 214 Effective Speaking 4 0 0 4

Prerequisites:

Corequisites:

Students given an opportunity to study all phases of speech situations. Directed primarily to the student seeking to give an account on the public platform. Other speech situations are not neglected. Having studied the basic principles involved in organizing and

presenting a speech, students are given suggestions to aid in developing speaking ability in situations such as conferences, panel discussions, radio, and television.

AIB 215 Branch Management **2 4 0 4**

Prerequisites:

Corequisites:

Course includes lending, management, and operations, intended for management trainees, branch managers, and assistant managers. Classified in Functional Banking area, course is recommended for diploma in Retail Banking, in Commercial Lending, and is required for Branch Operations diploma.

AIB 219 Credit Administration **4 0 0 4**

Prerequisites:

Corequisites:

Directed toward the executive level, concerned partly with a statement and a discussion of factors influencing and determining loan policy. Methods of credit investigation and analysis, credit techniques, specific credit problems, and regular as well as unusual types of loans are discussed.

AIB 220 Bank Cards **3 0 0 3**

Prerequisites:

Corequisites:

Classified in Functional Banking area, this course is a beginning level and recommended for diploma in Retail Banking, in Banking Marketing, and is required for Bank Card diploma.

AIB 226 Fundamentals of Bank Data Processing Seminar **0 2 0 1**

Prerequisites:

Corequisites:

AIB 228 Consumer Credit Analysis **4 0 0 4**

Prerequisites:

Corequisites:

Designed for individuals who understand the basics of consumer lending and its function within a bank but need specific training on the many aspects of making a consumer loan. Includes legal and regulatory issues; credit application, investigation, scoring fundamentals; credit decision considerations; loan interviewing, documentation, closing and review.

AIB 229 Financial Planning for Bankers **4 0 0 4**

Prerequisites:

Corequisites:

Designed for individuals with customer contact including bank managers, consumer credit, trusts, marketing, new business development, operations, and consumer information staff. Assumes no previous formal education or training has been done in financial planning. Provides a general appreciation of the topic and its application to the current banking environment.

AIB 230 Introduction to Commercial Lending **4 0 0 4**

Prerequisites:

Corequisites:

Explores various aspects of a bank's commercial loan department including cost analysis, regulatory and legal environment and business development.

AIB 231 Savings and Time Deposit Banking **4 0 0 4**

Prerequisites:

Corequisites:

Reflects recognition of the fact that a knowledge of the historical development of savings institutions and an awareness of the basic economic function of the savings process are necessary to an understanding of the current operations and policies of these institutions.

Begins with a review of the economics of the savings process in order to clarify important differences between financial savings by individuals or organizations and real savings that appear as capital formation. Different types of financial savings are reviewed in order to describe the system of financial flows of income to capital investment.

AIB 232 Agricultural Finance 4 0 0 4

Prerequisites:

Corequisites:

Reflecting the rapid growth of the off-farm agribusiness sectors (the suppliers of farm inputs), this course emphasizes general principles associated with the evaluation of management and the use of capital rather than the examination of land and labor resources which are more closely aligned with agricultural production. An understanding of agricultural finance should help the banker in satisfying the credit needs of modern agriculture.

AIB 233 Analyzing Financial Statements 4 0 0 4

Prerequisites:

Corequisites:

Characteristics of financial statements and financial statements analysis. The first section serves as a useful review of basic accounting principles for those students who have studied accounting. For those who have not, this section provides the minimum accounting background necessary for profitable study of financial statement analysis.

AIB 234 Loss Prevention 0 2 0 1

Prerequisites:

Corequisites:

This seminar focuses on check cashing, check swindles, bank holdups, and security procedures.

AIB 235 Loan and Discount 3 0 0 3

Prerequisites:

Corequisites:

This seminar teaches bank employees the essential facts about promissory notes, including calculating interest and discounting commercial paper; guarantees; general collateral agreements; examining and processing documents accompanying notes secured by stocks, bonds, and savings account passbooks; and the concepts of attachment, perfection, priority, default, and foreclosure.

AIB 236 Home Mortgage Lending 4 0 0 4

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Prerequisites:

Corequisites:

Approaches the subject from the viewpoint of the mortgage loan officer who seeks to develop a sound mortgage portfolio. A picture of the mortgage market is presented first; then the acquisition of a mortgage portfolio, mortgage plans and procedures, mortgage loan processing and servicing; and finally the obligations of the mortgage loan officer in overall portfolio management.

AIB 237 Selling Bank Services 0 2 0 1

Prerequisites:

Corequisites:

Teaches tellers and new-accounts personnel how to recognize and meet bank customer needs; checking accounts, savings services, loans to individuals, safe deposit boxes, travelers' checks, and cross selling.

AIB 239 Bank Public Relations and Marketing 4 0 0 4

Prerequisites:

Corequisites:

Discusses the basis of public relations, both internal and external, and seeks to explain the why, the what, and some of the how of public relations and marketing. Intended as an overview for all bankers in terms of what everyone in banking should know about the essentials of bank public relations and marketing.

				Clinical/Credit
	Class	Lab	Shop	Hours
AIB 250 Real Estate Finance				4 0 0 4

Prerequisites:

Corequisites:

Classified in Functional Banking area, this course is designed for personnel involved in mortgage credit and is recommended for diploma in Retail Banking.

AIB 259 Law and Banking				
	4	0	0	4

Prerequisites:

Corequisites:

Introduction to basic U. S. law, presenting the rules of law which underlie banking. Topics include jurisprudence, the court system and civil procedure, contracts, quasi-contracts, property, torts and crimes, agencies, partnerships, corporations, sales of personal property, commercial paper, bank deposits and collections, documents of titles, and secured transactions. Emphasis is on the Uniform Commercial Code.

AIB 299 Supervisory Training				
	4	0	0	4

Prerequisites:

Corequisites:

Explores role of supervisor with emphasis on management and leadership skills pertinent in bank operation.

ANTHROPOLOGY

ANT 150 Introduction to Anthropology				
	5	0	0	5

Prerequisites: Specified score on reading placement test or ENG 094

Corequisites:

General introduction to anthropology, the science of man as the culture-bearing animal. Topics considered; physical evolution of mankind and biological variations within and between modern human populations, prehistoric and historic developments of culture, cultural dynamics viewed analytically and comparatively.

ANT 160 Societies Around the World				
	5	0	0	5

Prerequisites: Specified score on reading placement test or ENG 094

Corequisites:

Ethnographic survey of world culture areas showing similarities and variations in cultural patterns.

ARCHITECTURE

ARC 104 Architectural Drafting				
	1	0	3	2

Prerequisites:

Corequisites:

Beginning course in architectural drafting. Course includes orthographic and isometric drawings.

ARC 105 Architectural Drafting				
	1	0	3	2

Prerequisites: ARC 104

Corequisites:

Intermediate course in architectural drafting. Course includes the mechanics of perspective drawing and rendering techniques. ARC 104 and 105 are equivalent to ARC 106.

Class	Lab	Shop	Clinical/Credit Hours
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ARC 106 Architectural Drafting

2 0 6 4

Prerequisites:
Corequisites:

Designed to provide fundamental knowledge of the principles of drafting. Basic skills and techniques of drafting included are the use of drafting equipment, lettering, pictorial sketching, geometric construction, and orthographic instrument drawing of principal views. Projection problems dealing with principles of isometric, oblique, and perspective drawings are included. Applications of descriptive geometry are used in visualization and analytical solutions of the drafting problems involving auxiliary views, intersections, and developments.

ARC 107 Architectural Drafting

2 0 6 4

Prerequisites: ARC 106, CIV 105

Corequisites:

Includes the development of techniques in architectural lettering, symbols, dimensioning, freehand and instrument drafting, and the development of a complete set of working drawings for a residence, with construction details and the use of appropriate material symbols and connections. Sections, scale details, and full-size details will be prepared from preliminary sketches.

ARC 108 Architectural Drafting

0 0 9 3

Prerequisites: ARC 107; AHR 106; CIV 105

Corequisites:

An indepth approach to the study of architectural drafting. Development of techniques in architectural lettering, dimensioning, freehand sketching and instrument drawing, and drawings of construction details, using appropriate material symbols will be included. A continuation of ARC 107, this course includes an introduction to commercial working drawings. Working drawings, including plans, elevations, sketches, scale details, and wall section details are prepared from preliminary sketches. Introduces computer drafting.

ARC 201 Architectural Design

3 0 9 6

Prerequisites: ARC 108

Corequisites:

Basic design principles; development of design as it relates to the details, structure, and aesthetic functions of buildings; design presentations and architectural models; and group and individual problems in design. Develops computer drafting in three dimensions.

ARC 202 Environmental Design

2 0 3 3

Prerequisites: ARC 108

Corequisites:

Design principles of regional and city planning, research reports, maps, and problems in environmental design. Problems solving using computer data.

ARC 220 Architectural Drafting

2 0 9 5

Prerequisites: ARC 108

Corequisites:

Includes commercial working drawings; materials used in commercial buildings; systems of construction; and drawing of structural plans and details as prepared for building construction, including steel, concrete, and timber structural components. Appropriate details and drawings necessary for construction are studied. Reference materials are used to provide the draftsman with skills and knowledge in locating data and in using handbooks.

				Clinical/Credit
	Class	Lab	Shop	Hours
ARC 221 Architectural Drafting	2	0	9	5

Prerequisites: ARC 220

Corequisites:

Individual or group projects which involve the coordination of working drawings for commercial work. Consideration is given to coordination of mechanical and electrical features with structural and architectural components. A two-week problem in model building or architectural presentation work is included.

ARC 222 Architectural Drafting	2	0	9	5
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Prerequisites: ARC 221; CIV 101; DFT 135

Corequisites:

Preparation of a complete set of working drawings for the architectural structure, coordinating floor plans, elevations, wall sections, and details. Site and landscaping plans are studied and drawn. Final assembly of the complete document for construction purposes made. Plans include environmental and energy considerations.

ARC 233 Office Practice Seminar	2	0	0	2
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Prerequisites:

Corequisites:

Study of the professional relationship of the architectural firm to clients, contractors, suppliers, consultants, and other architects. Ethics of the profession as applied to the draftsman's role in the architectural firm are emphasized as well as the legal aspects of architectural practice.

ART

ART 160 Art Appreciation	3	0	0	3
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Prerequisites:

Corequisites:

Exploratory study of the visual experience; intended to enhance the student's understanding and enjoyment of art.

ART 170 Color and Design	5	0	0	5
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Prerequisites:

Corequisites:

Study of principles common to all visual work emphasizing color, line, shape, space, volume, and texture and their psychological and physical effects on the viewer.

BIOLOGY

BIO 100 Introduction to Human Biology	5	0	0	5
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Prerequisites: ENG 095 or equivalent score on the reading placement test

Corequisites:

Introduces the normal structure and function of the human body. Presents the cell as the basic building block of the human organism and introduces some basic concepts in chemistry to provide a basis for understanding the body functions. Includes medical terminology appropriate to each body system used in describing various body parts, medical procedures, and disease states. Ways of detecting disease states are considered. Designed for students in the medical secretary curriculum.

				Clinical/Credit
	Class	Lab	Shop	Hours
BIO 101 Basic Life Sciences	5	0	0	5

Prerequisites: ENG 095 or equivalent score on reading placement test

Corequisites:

Foundation of facts and principles in the normal structure and related functioning of the following body systems: skeletal, muscular, digestive, circulatory, respiratory, urinary, reproductive, endocrine, integumentary, nervous, and special sense organs. Presents principles and concepts of physiology and immunology. Presentation of the normal body as a basis for understanding variations from the normal.

BIO 107 Anatomy and Physiology I	4	2	0	5
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Prerequisites: ENG 095 or equivalent score on reading placement test

Corequisites:

A study of the structure and normal function of the human body with man identified as a living organism composed of living cells, tissues, organs, and systems. Included are the basic anatomical and physiological aspects of the integumentary, skeletal, muscular, respiratory, cardiovascular, and lymphatic systems. The laboratory portion includes relevant experiments to augment the student's learning of body structure and functions.

BIO 108 Anatomy and Physiology II	4	2	0	5
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Prerequisites: BIO 107

Corequisites:

A continuation of the study of the structure and normal function of man as a living organism. Included are the basic anatomical and physiological aspects of the nervous, endocrine, urinary, digestive, and reproductive systems, the special senses, and fluid and electrolyte balance. The laboratory portion includes relevant experiments to augment the student's learning of body structure and function.

BIO 150 Human Anatomy and Physiology I	3	2	0	4
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Prerequisites: A minimum score of 70 on the science placement exam; CHM 110; ENG

Corequisites:

Study of the microscopic and macroscopic structure of the human body. Includes a study of normal physiology as a basis for understanding pathophysiological states. Covers cells, tissues, body organization, and integumentary, cardiovascular, respiratory, and digestive systems.

BIO 151 Human Anatomy and Physiology II	3	2	0	4
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Prerequisites: BIO 150

Corequisites:

Continues the study of the structure and function of the human body including a comprehensive study of normal human nutrition. Covers the nervous system and endocrine system.

BIO 152 Human Anatomy and Physiology III	3	2	0	4
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Prerequisites: BIO 151

Corequisites:

Continues the study of the structure and function of the human body. Covers the muscular, skeletal, reproductive, an urinary system and the special senses of vision, hearing, and equilibrium are studied along with fluid and electrolyte balance.

BIO 206 Microbiology	3	2	0	4
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Prerequisites: BIO 108 or BIO 150

Corequisites:

A study of basic microbiology and its relationship to health and disease. Includes basic laboratory practice; microbial physiology; environmental, medical, and applied microbiology.

				Clinical/Credit
	Class	Lab	Shop	Hours
BIO 210 Radiation Biology				4 0 0 4
Prerequisites: RDT 205				
Corequisites:				
Study of radiobiology with emphasis on the effects of ionizing radiation in the human body. The use of radiation and radioactive materials in nuclear medicine and radiation therapy considered along with protective measures.				
BIO 250 General Biology I				3 2 0 4
Prerequisites: Specified score on reading placement test				
Corequisites:				
Introduction to basic biological concepts and principles; a study of the chemical and physical properties of the living cell; cell structure; function relationship; and cell reproduction and genetics.				
BIO 251 General Biology II				3 2 0 4
Prerequisites: Specified score on reading placement test				
Corequisites:				
A survey of the five kingdoms with emphasis on structure-function relationships and on phylogenetic complexity. In addition, vertebrate nutrition and digestion, gas exchange, blood and transport systems, and animal excretion will be studied.				
BIO 252 General Biology III				3 2 0 4
Prerequisites: BIO 251				
Corequisites:				
A continuation of the study of vertebrate systems including skeletal, muscular, reproductive, endocrine, and temperature regulating systems. The structure, growth, transport system, and reproductive system of vascular plants will be studied. Ecosystems, ecology, and evolution are also considered.				

BUSINESS

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BUS 102 Beginning Keyboarding				2 0 3 3
Prerequisites:				
Corequisites:				
Emphasis on study of the keyboard, mechanics of the equipment necessary for the acquisition of elementary keyboarding skills, and development of speed and accuracy.				
BUS 103 Intermediate Keyboarding				2 0 3 3
Prerequisites: BUS 102 or equivalent				
Corequisite:				
Development of speed and accuracy with further mastery of correct keyboarding techniques as applied to tabulation, manuscript, correspondence, and business forms.				
BUS 150A Introduction to Shorthand				2 3 0 3
Prerequisites:				
Corequisites:				
Beginning course in theory and practice of reading and writing Gregg shorthand.				
BUS 105B Introduction to Shorthand				2 3 0 3
Prerequisites: BUS 105A or equivalent				
Corequisites:				
Sequel to BUS 105A; emphasis on phonetics, penmanship, word families, brief forms, and phrases.				

					Clinical/Credit
	Class	Lab	Shop	Hours	
BUS 106 Beginning Shorthand	4	6	0	7	
Prerequisites: ENG 101S (minimum grade of "B")					
Corequisites: BUS 113					
Beginning course in theory and practice of reading and writing Gregg shorthand. Emphasis on phonetics, penmanship, word families, brief forms, and phrases.					
BUS 107 Intermediate Shorthand	4	6	0	7	
Prerequisites: BUS 106					
Corequisites: BUS 114					
Continued study of theory with greater emphasis on dictation and elementary transcription.					
BUS 108 Advanced Shorthand	4	6	0	7	
Prerequisites: BUS 107					
Corequisites:					
Review of shorthand principles, daily speed practice, and development of greater dictation and transcription speed.					
BUS 110 Electronic Calculator	2	2	0	3	
Prerequisites: MAT 110					
Corequisites:					
Training in the techniques, processes, operations, and applications of electronic calculator.					
BUS 112 Filing	3	0	0	3	
Prerequisites:					
Corequisites:					
Fundamentals of indexing and filing, combining theory and practice by the use of miniature letters, filing boxes, and guides. Students will also become familiar with modern filing equipment.					
BUS 113 Machine Transcription I	5	0	0	5	
Prerequisites: BUS 171; ENG 101S (minimum grade of "B")					
Corequisites: BUS 187					
Introductory course in the correct techniques of operating the dictating and transcribing units, plus fundamentals of transcription such as spelling, punctuation, grammar, letter placement, and the use of reference materials.					183
BUS 114 Machine Transcription II	5	0	0	5	
Prerequisites: BUS 113 (minimum grade of "C")					
Corequisites:					
Continuation of BUS 113 with additional emphasis on producing mailable business correspondence.					
BUS 115M Medical Law and Ethics	3	0	0	3	
Prerequisites:					
Corequisites:					
Study of the principles of office conduct, ethical responsibility of the office staff with regard to information acquired, and obligations and responsibilities of the medical office worker or transcriber. Laws governing medical practice are also included.					
BUS 117 Electronic Calculator: Secretary	2	3	0	3	
Prerequisites: MAT 110					
Corequisites:					
Problem solving activities for efficient machine operation, verifying techniques, machine programming, and concepts of business mathematics widely used in both business and personal situations.					

				Clinical/Credit	
		Class	Lab	Shop	Hours
BUS 123	Business Finance	3	0	0	3
Prerequisites: ACT 152					
Corequisites:					
Financing of business units, as individuals, partnerships, corporations, and trusts. A detailed study of short-term, long-term, and consumer financing is included.					
BUS 134	Professional Development	3	0	0	3
Prerequisites:					
Corequisites:					
Designed to help students recognize the importance of physical, intellectual, social, and emotional dimensions of personality. Emphasis is placed on poise, grooming, and methods of personal improvement.					
BUS 136	Introduction to Credit Union	3	0	0	3
Prerequisites:					
Corequisites:					
A systematic introduction to the credit union movement, the nature of credit unions, their history and a brief explanation of affiliated organizations, including the NCUA. The legal basis for the operation of credit unions is examined along with share drafts and VISA cards, traditional services, and the roles and functions credit union management. The developing credit union financial system and the basics of credit union insurance and bonding are also explained. SC/NC grading.					
BUS 137	Management: Credit Unions	3	0	0	3
Prerequisites:					
Corequisites:					
Study of management principles: motivation, organization, manager's role in human behavior, decision making, planning, directing, controlling and development. General elements of management as well as means of application towards credit union operations. Also consultation and training as management tools.					
BUS 138	Credit Union Operations	3	0	0	3
Prerequisites:					
Corequisites:					
The course focal points involve the functions of teller transactions, loan granting, financial counseling and collections. Aspects of credit granting skills, loan policies and current regulations, including ECOA and Truth-in-Lending, are discussed. Financial counseling skills are taught, emphasizing both interviewing techniques and methods of personal finance. Collection systems and control are also emphasized. The last section of the course deals with credit union and the law.					
BUS 139	Financial Management: Credit Unions	3	0	0	3
Prerequisites:					
Corequisites:					
A developmental course designed to increase skills of financial management within credit union operations. General review of financial accounting with progressive analysis of generated financial data. Implications of risk management are discussed along with investing procedures.					
BUS 140	Spreadsheet Applications	2	2	0	3
Prerequisites: BUS 170 or prior microcomputer experience					
Corequisites:					
In one package software provides information management (electronic filing), spreadsheet (electronic worksheet for analysis and forecasting), and a business graphics program (spreadsheet information displayed in graphic form).					

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				Clinical/Credit
	Class	Lab	Shop	Hours
BUS 141 Database Management	2	2	0	3

Prerequisites: BUS 170 or prior microcomputer experience

Corequisites:

A software package that introduces the most powerful and popular data management system available on the market today. Uses powerful yet simple commands that are the next best thing to speaking English, making it very user-friendly.

BUS 142 Personnel Administration:	3	0	0	3
Credit Unions				

Prerequisites:

Corequisites:

Study of management applications to office and personnel situations: systems and procedures, office layout, records management, information media, supervisory skills, development of office employees, salary administration, job evaluation, labor relations, performance appraisal, training methods, benefit program and management responsibility in personnel relations.

BUS 143 Accounting I: Credit Unions	3	2	0	4

Prerequisites:

Corequisites:

The generation and flow of financial information through the accounting system for external reporting. Areas include: principles, accounting cycles, financial statements analysis of revenue and expense, analysis of asset, liability and equity accounts and present value concepts.

BUS 144 Accounting II: Credit Unions	3	2	0	4

Prerequisites:

Corequisites:

An expanded study of accounting principles emphasizing the preparation and use of reports for management decision making.

BUS 146 Economics: Credit Unions	3	2	0	4

Prerequisites:

Corequisites:

A systematic study and analysis of economic activities. Topics: Economic concepts, national income, pricing, supply and demand, income, savings and living standards, business organization, labor and industrial relations, government economic role, business cycles and forecasting, banking system, economic problems and other economic systems.

BUS 147 Marketing: Credit Unions	3	0	0	3

Prerequisites:

Corequisites:

The concepts of planning and developing a marketing program and techniques of strategy. Topics: market structure, buyer, behavior, product packaging and branding, distribution, promotion, pricing, integration of marketing programs, controlling of program and cost value to society.

BUS 148 Financial Counseling: Credit Unions	3	0	0	3

Prerequisites:

Corequisites:

Study of financial needs and resolutions of consumers. Topics: family components, social security, life insurance and annuities, savings and investments, estate planning, wills and trusts, consumer education, types techniques, evaluation and ethics of counseling.

				Clinical/Credit
	Class	Lab	Shop	Hours
BUS 149 Credit & Collections/Credit Unions	3	0	0	3
Prerequisites:				
Corequisites:				
Aspects of extending credit and policies of collection of accounts. Topics: Role of credit, types of consumer credit, basis of credit, decision making in credit, scoring systems, practices and systems of collection, business and government credit functions, and control of credit operations.				
BUS 150 Business Law: Credit Unions	3	0	0	3
Prerequisites:				
Corequisites:				
A study of law as it applies to general business and a working knowledge of legal terminology. Topics: contracts, agency, commercial paper, bankruptcy, social forces, and legal rights.				
BUS 151 Money Banking: Credit Unions	3	0	0	3
Prerequisites:				
Corequisites:				
Stresses the structure of financial institutions and their role in the financial and economic fields. Topics: money and its functions, federal reserve system, interest rates, monies role and impact on the economy including the national debt. History and creation of money is also reviewed.				
BUS 152 Data Processing/Credit Unions	3	0	0	3
Prerequisites:				
Corequisites:				
This course is designed to provide students with an up-to-date introduction to the principles of computers and data processing. Topics: computer functions, hardware, software, systems and the integration of the systems into business and credit union settings.				
BUS 153 Data Processing: Credit Unions	3	0	0	3
Prerequisites:				
Corequisites:				
This course is designed to provide students with an up-to-date introduction to the principles of computers and data processing. Topics: computer functions, hardware, software, systems and the integration of the systems into business and credit union settings.				
BUS 155 Cash Register: Electronic	0	2	0	1
Prerequisites:				
Corequisites:				
Designed to acquaint students with the fundamentals of operating the SWEDA 2650 Electronic Cash Register.				
BUS 156 Advanced Spreadsheet Applications	2	2	0	3
Prerequisites: BUS 140				
Corequisites:				
Continuation of Bus 140, with further study of database management, printgraph and advanced functions. Emphasis on macros as a programming language for specialized spreadsheets.				
BUS 165 Introduction to Business	5	0	0	5
Prerequisites:				
Corequisites:				
Survey of the business world with particular attention to the structure of various types of business organizations, methods of financing, internal organization, management, functions of business and relationships in society, and current problems.				

				Clinical/Credit
	Class	Lab	Shop	Hours
BUS 166 Business Law I	3	0	0	3

Prerequisites:

Corequisites:

Study of the law as it applies to ordinary business transactions, including the law of contracts, agency and employment, and commercial paper. Exposure to legal problems frequently arising in business and social life.

BUS 167 Business Law II	3	0	0	3
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Prerequisites:

Corequisites:

Continuation of BUS 166. Includes the law of personal property and bailments, sales, insurance, and torts.

BUS 168 Marketing Law	3	0	0	3
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Prerequisites: BUS 166

Corequisites:

Study of the law as it applies to making critically important marketing decisions.

BUS 170 Introduction to Microcomputer Applications	2	2	0	3
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Prerequisites: Academic credit for typing or demonstration of keyboarding skills

Corequisites:

A general introduction to the microcomputer and various tutorial software packages. Strictly an applications course—will not cover programming.

BUS 171 Word Processing	2	2	0	3
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Prerequisites: Academic credit for keyboarding and prior microcomputer experience

Corequisites:

A word processing software program developed for use on the MS-DOS microcomputers. This course is designed to give the student a basic understanding of the operation and application of the system. The student should have keyboarding skills.

BUS 172 Advanced Word Processing	2	2	0	3
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Prerequisites: BUS 171

Corequisites:

The course is designed to explore advanced applications using word processing software including advanced tables, math features, simple and advanced text tables, footnoting, outlining, and advanced merging.

BUS 181M Administrative Medical Office Assistant Procedures	3	0	0	3
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Prerequisites:

Corequisites:

Provides adequate training for the assistant to be efficient in the medical office. Emphasis is placed on medical ethics and law; receptionist's duties; telephone techniques; mail processing procedures; records management billing, collecting, and banking procedures; and accident insurance.

BUS 182M Clinical Assistant Procedures	3	0	0	3
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Prerequisites:

Corequisites:

Continuation of medical office training covering a vast area of clinical techniques, such as microbiology, pharmacology, diagnostic laboratory procedures, first aid and medical emergencies, and administration of medications. Further study in assisting with physical therapy, minor surgery, etc.

				Clinical/Credit
	Class	Lab	Shop	Hours
BUS 183L Legal Typing Practice	3	0	0	3

Prerequisites: BUS 103

Corequisites:

Training in the functions, operations, and duties performed in a legal office. The course includes typing legal documents, reviewing general information about tasks assigned following established procedures, performing general office routine, and learning the responsibilities of a legal secretary.

BUS 183M Medical Typing Practice	3	0	0	3
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Prerequisites: BUS 103

Corequisites:

Training in the functions, operations, and duties performed in a medical office. Technical material acquaints the prospective medical assistant with commonly used medical vocabulary and procedures.

BUS 184D Terminology and Vocabulary: Dental	3	0	0	3
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Prerequisites:

Corequisites:

An introductory course in dental assisting and dental terminology. The student will learn many of the basic root words, prefixes, and suffixes upon which many dental terms are built. Also provides a basic introduction to many aspects of dentistry, including dental anatomy, oral pathology, radiography, chairside procedures, and dental specialties.

BUS 184M Terminology and Vocabulary: Medical I	3	0	0	3
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Prerequisites: BIO 100

Corequisites:

Introduction to the study of the structure of medical words and terms. Emphasis is placed on spelling and defining commonly-used prefixes, suffixes, root words, and their combining forms.

BUS 185M Terminology and Vocabulary: Medical II	3	0	0	3
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Prerequisites: BUS 184M

Corequisites:

Continuation of the study of medical words and terms with emphasis on words as they pertain to anatomy, physiology, diseases, operations, tumors, drugs, and related descriptive terms.

BUS 186M Terminology and Vocabulary: Medical III	3	0	0	3
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Prerequisites: BUS 185M

Corequisites:

Continuation of BUS 185M with additional study emphasizing the various systems of the body.

BUS 187 Introduction to Transcription	3	0	0	3
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Prerequisites: ENG 101S (with a minimum grade of "B")

Corequisites: BUS 113

Integration of the necessary skills for transcribing mailable copy.

BUS 188 Medical Transcription I	4	3	0	5
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Prerequisites: BUS 170, 171, 183, 187

Corequisites:

Machine transcription from cassette recordings produced by the American Medical Record Association of materials routinely transcribed in a medical office. Units include history and physical, radiology, operation, pathology, and autopsy reports and discharge summaries.

				Clinical/Credit
	Class	Lab	Shop	Hours
BUS 189 Medical Transcription II	4	2	0	5

Prerequisites: BUS 188

Corequisites:

Continuation of BUS 188 with units containing work in the following areas: psychiatry, pediatrics, obstetrics and gynecology, corrective surgery, and the endocrine, respiratory, genitourinary, gastrointestinal, cardiovascular, and neurological systems.

BUS 192 Textpack 4	2	3	0	3
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Prerequisites: BUS 103 and permission from instructor

Corequisites:

Designed to give the student a basic understanding of the operation and application of the IBM Displaywriter System through programmed instruction and diskettes.

BUS 193 Advanced Textpack 4	2	3	0	3
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Prerequisites: BUS 192 and permission from instructor

Corequisites:

Designed to explore advanced applications using the IBM Displaywriter System including advanced tables, math features, simple and advanced text tables, and advanced procedures for organizing one's work station.

BUS 194 Report Pack	2	3	0	3
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Prerequisites: BUS 193 and permission from instructor

Corequisites:

Covers electronic filing on the IBM Displaywrite System including storing text and data on diskettes in an organized fashion, retrieving text and data from a file, creating repetitive letters using the merge feature, creating mailing lists from data stored in the file, and creating various reports from stored data.

BUS 213 Machine Transcription III	5	0	0	5
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Prerequisites: BUS 114 (minimum grade of "C")

Corequisites:

Emphasis on refinement of machine transcription skills and developing proficiency in producing mailable copy.

BUS 214 Business Seminar	2	0	0	2
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Prerequisites: 100 hours of required courses with 2.0 grade-point average. Medical
Corequisites: Cooperative Education Field Experience

Explores career planning principles and career development and job hunting techniques. Designed to increase awareness of one's abilities, teach goal-setting and decision-making skills, and provide direct interaction with employers and job search tools such as resumes, applications, correspondence, and interviews.

BUS 216 Office Procedures	5	0	0	5
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Prerequisites: BUS 113 (minimum grade of "C"), ENG 206

Corequisites:

Designed to acquaint students with the responsibilities encountered by a general office worker during the work day, including receptionist duties, handling the mail, telephone techniques, handling the multi-office switchboard, travel information, telegrams, office record, purchasing supplies, office organization, and scheduling appointments.

BUS 219 Credit Problems and Procedures	3	0	0	3
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Prerequisites: ACT 150

Corequisites:

Principles and practices in the extension of credit and the collection of accounts. Federal and state laws pertaining to credit extension and to collection are included.

				Clinical/Credit
	Class	Lab	Shop	Hours
BUS 222 Intermediate Accounting	5	2	0	6
Prerequisites: ACT 152				
Corequisites:				
Intensive review of the accounting cycle, including study of financial statements and closing procedures. Includes a more detailed study of current assets including cash, temporary investments, receivables, and inventories.				
BUS 223 Intermediate Accounting	5	2	0	6
Prerequisites: BUS 222				
Corequisites:				
Advanced study of inventories, investments, and intangible assets. Examines long-term liabilities and stockholder's equity accounts and the statements of changes in financial position.				
BUS 225 Cost Accounting	3	2	0	4
Prerequisites: ACT 152				
Corequisites:				
Nature and purposes of cost accounting. Includes accounting for direct labor, materials, and factory overhead; job cost and standard cost principles and procedures; selling and distribution costs; budgets; and executive use of cost figures.				
BUS 226 Payroll Accounting	3	2	0	4
Prerequisites: ACT 151				
Corequisites:				
An intensive study of federal and state income tax requirements. Preparation of forms for social security and income withholding payments and unemployment taxes. Comprehensive payroll problem includes accounting for payroll and preparation of tax forms.				
BUS 229 Taxes	3	2	0	4
Prerequisites: ACT 152				
Corequisites:				
Federal and state income tax preparation. Includes preparation of income tax forms for sole proprietorship, recording partnership income on the individual return, calculation of capital gains, accounting for rental property, and calculation of self-employment.				
BUS 231 Computerized Inventory Procedures	2	2	0	3
Prerequisites: ACT 150; BUS 170				
Corequisites:				
An overview of inventory procedures including general terms, methods and or techniques, and computer application.				
BUS 232 Sales Development	3	0	0	3
Prerequisites:				
Corequisites:				
Study of the fundamentals of retail, wholesale, and specialty selling as applied to the sales demonstration.				
BUS 233 Personnel Management	3	0	0	3
Prerequisites:				
Corequisites:				
Study of personnel department; policies of recruitment, selection, placement, training, and promotion; and employee health and safety.				
BUS 235 Business Management	3	0	0	3
Prerequisites:				
Corequisites:				
Study of the application of planning, staffing, controlling, directing, and financing to decision making.				

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				Clinical/Credit
	Class	Lab	Shop	Hours
BUS 239 Marketing for Bankers	5	0	0	5

Prerequisites:

Corequisites:

Survey of the marketing process with a detailed study of functions, policies, and institutions.

BUS 241 Buying and Merchandising	3	0	0	3
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Prerequisites: BUS 239

Corequisites:

Analysis of the organization for buying—what, when, and how to buy and the principles of effective inventory and stock control. Topics include organization for buying, analysis or buyer's responsibilities, pricing, inventory control, planning, cost effectiveness and vendor relationships.

BUS 242 Commercial Display and Design	2	2	0	3
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Prerequisites: BUS 239

Corequisites:

Introduction to basic layout and design and commercial displays. Emphasis will be directed toward the retail outlet.

BUS 243 Advertising	3	2	0	4
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Prerequisites:

Corequisites:

Study of advertising appeal, product and market research, media selection, and testing the effectiveness of mass communications.

BUS 247 Business Insurance	3	0	0	3
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Prerequisites:

Corequisites:

Presentation of the basic principles of various types of insurance.

BUS 248 Medical Insurance	3	0	0	3
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Prerequisites:

Corequisites:

Practical approach to smooth operation and efficiency in the handling of insurance claims in the medical office. Offers the opportunity to work with the major insurances including BC-BS, Medicare, CHAMPUS, worker's compensation, and others.

BUS 259 Office Simulation	2	3	0	3
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Prerequisites: BUS 216

Corequisites:

Culmination of keyboarding skills development involving general clerical duties such as typing invoices, insurance forms, statements of account, form letters, reports, payrolls, purchase orders, and monthly reports. A simulation is used that gives realistic patterns of interaction with coworkers to enable students to learn firsthand the personal traits and human relations skills needed for successful employment.

BUS 267 Auditing: Credit Unions	3	2	0	4
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Prerequisites:

Corequisites:

A course which details the steps of preparing an audit, conducting an audit and reporting of the audit results. Emphasis of the evaluation of internal control and the reporting function is of major topic concern.

				Clinical/Credit	
		Class	Lab	Shop	Hours
BUS 269 Auditing				5	0
Prerequisites:					
Corequisites:					
Study of the audit profession. Stresses professional responsibilities and ethics. Introduces the audit process, including an overview, methods of obtaining audit evidence, and audit program planning. Closely examines evaluation of internal control and the reporting function.					
BUS 270 Computer Application of Accounting	1		4	0	3
Prerequisites: EDP 112					
Corequisites:					
Computerized practice set on the computer. The student works with accounts receivable, payroll, general ledger, and accounts payable.					
BUS 271 Office Management		3	0	0	3
Prerequisites:					
Corequisites:					
Study of basic management principles as applied to the office as a business service center.					
BUS 272 Principles of Supervision		3	0	0	3
Prerequisites:					
Corequisites:					
Study of the responsibilities and duties of a supervisor as related to his supervisors, subordinates, and associates.					
BUS 290 ABC Special Problems in Business		1	0	0	1
Prerequisites:					
Corequisites:					
Designed for students who want to expand their knowledge and ability in certain areas of business management, accounting, or secretarial skills. The course is structured to meet the specific objectives of each student and is supervised by an appointed member of the business education faculty.					
BUS 1103 Small Business Operations		3	0	0	3
Prerequisites:					
Corequisites:					
Introduction to the business world; includes problems of small business operations, basic business law, business forms and records, financial problems, ordering and inventorying, layout of equipment and offices, methods of improving business, and employer-employee relations.					
BUS 1105 Industrial Organization		3	0	0	3
Prerequisites:					
Corequisites:					
Methods, techniques, and practices of modern management in planning, organizing and controlling operations of a manufacturing concern. Introduction to the competitive system and the factors constituting product costs.					

CARPENTRY

CAR 1101 Carpentry

3 0 15 8

Prerequisites:

Corequisites:

Brief history of carpentry and present trends of the construction industry. Involves operation, care, and safe use of carpenters' handtools and power tools in cutting, shaping, and joining construction materials used by the carpenter. Major topics of study

include theoretical and practical applications involving materials and methods of construction, building layout, preparation of site, footings and foundation wall construction, and form construction and erection.

CAR 1102 Carpentry: Millwork and Cabinetmaking 3 0 15 8

Prerequisites: CAR 1101, DFT 1110

Corequisites:

Cabinetmaking and millwork as performed by the general carpenter for building construction. Use of shop tools and equipment emphasized in learning methods of construction of millwork and cabinetry. Practical applications include measuring, layout, and construction of base and wall cabinets, built-in desks, door and window frames, stairs, and interior and exterior cornices and trim. Materials and finishes are also studied.

CAR 1103 Carpentry: Framing 3 0 15 8

Prerequisites: CAR 1101, DFT 1111

Corequisites:

Principles and practices of frame construction beginning with the foundation sills and including floor joists, subfloors, wall studs, ceiling joists, rafters, bridging, bracing, sheathing, and interior wall partitions. Roof construction includes layout and construction methods of common types of roof, using standard after construction, truss construction, and post and beam construction. Application and selection of sheathing and roofing is included. Consideration is given to coordination of carpentry work with installation of electrical, air conditioning, heating, plumbing, and mechanical equipment.

CAR 1104 Carpentry: Finishing 3 0 18 9

Prerequisites: CAR 1103; DFT 1111

Corequisites:

Emphasis on exterior ad interior trims and finishes. Included are materials and methods used in finishing carpentry such as exterior cornices, door and window trims, interior flooring, door and window facings, moldings, and cornice construction; installation of hardware; and installation of built-in equipment and cabinets.

CAR 1109 Carpentry: Millwork and Cabinetmaking I 0 0 6 2

Prerequisites:

Corequisites:

Cabinetmaking and millwork as performed by the general carpenter for building construction. Safe use of shop tools and equipment emphasized in learning methods of construction of millwork and cabinetry. Practical applications include measuring, layout, construction of base and wall cabinets, built-in desks; materials and finishes are also studied. CAR 1109, 1110, and 1111 series is equivalent to CAR 1102.

CAR 1110 Carpentry: Millwork and Cabinetmaking II 0 0 6 2

Prerequisites:

Corequisites:

Continues the topics introduced in CAR 1109. Interior cornices and trim are introduced. Materials and finishes are also studied. CAR 1109, 1110, and 1111 series is equivalent to CAR 1102.

CAR 1111 Carpentry: Millwork and Cabinetmaking III 3 0 3 4

Prerequisites:

Corequisites:

Continues CAR 1109 and CAR 1110. Materials and finishes selections are further studied. CAR 1109, 1110, and 1111 series is equivalent CAR 1102.

				Clinical/Credit
	Class	Lab	Shop	Hours
CAR 1113 Carpentry: Estimating	3	0	3	4

Prerequisites: DFT 1111; MAT 1112

Corequisites:

Practical course in quantity "take off" from prints of jobs performed by the carpenter; figuring the quantities of materials needed and costs of building various components and structures.

CAR 1114 Building Codes	3	0	0	3
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Prerequisites: CAR 1103

Corequisites: CAR 1104

Study of building codes and the minimum requirements for local, county, and state construction regulations. Attention is given to safety, sanitation, mechanical equipment, and materials, and to a review of the minimum property requirements of the Federal Housing Administration and the North Carolina State Code.

COMMERCIAL ART

CAT 102 Drawing I	2	4	0	4
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Prerequisites:

Corequisites:

Emphasis on basic principles and fundamentals of drawing. Includes application of these basic techniques in problems in perspective drawing and drawing from nature.

CAT 103 Drawing II	2	4	0	4
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Prerequisites: CAT 102

Corequisites:

Course consisting of a series of problems in which students explore color and advanced wet and dry media.

CAT 104 Drawing III	2	4	0	4
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Prerequisites: CAT 103

Corequisites:

Course consisting of a series of problems concentrating on graphic interpretation of still-life, landscape, and figure.

CAT 105 Beginning Drawing I	1	2	0	2
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Prerequisites:

Corequisites:

Course consisting of a series of problems in which the student will explore fundamentals of drawing as topics of materials, shape, line, and value are introduced.

CAT 106 Beginning Drawing II	1	2	0	2
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Prerequisites: CAT 105 or permission of department chairperson

Corequisites:

Continues the emphasis on topics introduced in CAT 105 and through problems, perspective and volume are treated as students continue to develop skills in the fundamentals of drawing.

CAT 110 Art History to 1300	3	0	0	3
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Prerequisites:

Corequisites:

Brief survey of art and its development in western civilization with emphasis on the development of art forms of expression to thirteen-hundred.

				Clinical/Credit
	Class	Lab	Shop	Hours
CAT 111 Art History Since 1300	3	0	0	3
Prerequisites:				
Corequisites:				
A brief survey of art and its development in western civilization with emphasis on the development of art forms of expression from thirteen-hundred to the modern era.				
CAT 112 Typography I	2	4	0	4
Prerequisites:				
Corequisites:				
A survey of the evolution of type - both style and proportion. An introduction to the common characteristics, the measurement, and fitting of type.				
CAT 113 Typography II	2	4	0	4
Prerequisites: CAT 112				
Corequisites:				
An introduction to phototyping and applications to compugraphic typesetter.				
CAT 115 PageMaker For Business	0	0	0	0
Prerequisites:				
Corequisites:				
CAT 116 Computer II	2	4	0	4
Prerequisites: CAT 114				
Corequisites:				
An introductory course in advanced imaging with Aldus Freehand				
CAT 117 Computer III	2	4	0	4
Prerequisites: CAT 114				
Corequisites:				
An introductory course to page make-up with Aldus PageMaker				
CAT 118 Computer IV	2	4	0	4
Prerequisites: CAT 114				
Corequisites:				
A course in advanced computerized illustration with Adobe Illustrator				
CAT 119 History Of Design	2	0	0	2
Prerequisites:				
Corequisites:				
To illustrate and explain the main styles in the History of Design with emphasis on the period from 1850 to the present. A primary objective will be to relate historical styles and developments to contemporary design trends.				195
CAT 120 Illustration I	2	4	0	4
Prerequisites: CAT 109				
Corequisites:				
Course introduces various media used in creating dynamic visual presentations, the object of which is to stimulate the student's awareness of alternative means of expression.				
CAT 121 Design I	2	4	0	4
Prerequisites:				
Corequisites:				
Introduction to basic design and its elements and concepts. Deals with problems in balance, value, line, texture, and shape. Work with basic tools and materials to explore some of the design possibilities of two-dimensional format included.				

			Clinical/Credit
	Class	Lab	Shop Hours

CAT 122 Graphic Design I	2	4	0	4
Prerequisites: CAT 121 or portfolio				
Corequisites:				
Continuation of Design I with emphasis on the fundamentals and theories of color and its application and design potential.				
CAT 123 Graphic Design II				
Prerequisites: CAT 121, 122				
Corequisites:				
Introduction to the basic techniques of layout and graphic design including paste-up, mechanicals, typography, and production.				
CAT 210 Production	2	4	0	4
Prerequisites: All 100 level drawing or design courses				
Corequisites:				
Introduction to production techniques. Includes the exploration of mechanical type and its formation and uses. Airbrush techniques and the commercial uses of silkscreen printing are also included. Each student should acquire a working knowledge of each medium through laboratory exercises provided.				
CAT 212 Illustration II	2	4	0	4
Prerequisites:				
Corequisites:				
Introduction to the use of the illustration in advertising. Students will explore the uses of media and illustration styles.				
CAT 213 Illustration III	2	4	0	4
Prerequisites: CAT 212; all 100 level drawing or design courses				
Corequisites:				
Advanced problems in advertising illustration with emphasis on originality and the readiness of each student to explore assigned tasks and problems.				
CAT 214 Typography III	2	4	0	4
Prerequisites: All 100 level drawing or design courses				
Corequisites:				
Includes hand exercises with the pencil, pen point, and lettering brush as well as mechanical procedures and laboratory exercises to acquire knowledge of availability of type and its usage.				
CAT 224 Graphic Design III	2	4	0	4
Prerequisites: CAT 123; all 100 level drawing or design courses				
Corequisites:				
Introduction to intermediate layout and design techniques for offset printing, including the preparation of camera-ready art work. Laboratory problems include an introduction to the graphic art darkroom procedures necessary for offset printing and an introduction of the offset press operation.				
CAT 225 Graphic Design IV	2	4	0	4
Prerequisites: CAT 224; all 100 level drawing or design courses				
Corequisites:				
Study of advanced problems in layout and design techniques and advanced darkroom procedures necessary for offset production. Laboratory exercises include multicolor offset production problems.				

					Clinical/Credit
	Class	Lab	Shop	Hours	
CAT 226 Graphic Design V	2	4	0	4	
Prerequisites: CAT 225; all 100 level drawing or design courses					
Corequisites:					
Includes use of simulated professional working conditions in utilizing advanced layout and design techniques for printing. Students will explore a variety of problems and present solutions for general class critique and discussion.					
CAT 235 Portfolio Development	2	4	0	4	
Prerequisites:					
Corequisites:					
Students become familiar with specific areas of interest and prepare personal portfolios for presentation to prospective employers.					
CAT 241 Painting: Water Color	0	6	0	3	
Prerequisites:					
Corequisites:					
Introduction to the methods of water-color painting. The fluidity of the medium, dry brush effects, and the use of tools and instruments of painting are included. Emphasis will be placed on the integrity of the medium.					
CAT 242 Drawing: Pastels	1	4	0	3	
Prerequisites:					
Corequisites:					
Introduction to techniques of pastels, including experimenting with application of chalk to various papers. The use of tools of the craft, methods of applying chalk to the paper surface, and utilizing the paper itself as a moving force in the medium are also included.					
CAT 244 Fashion Illustration	1	4	0	3	
Prerequisites:					
Corequisites:					
Study of the clothed figure with attention to the functional relationship of fashion design to the human form and to the study of draped fabric. Graphic interpretations of a live model in gesture and rendering fabric effects is emphasized.					
CAT 245 Painting: Water Color II	0	6	0	3	197
Prerequisites:					
Corequisites:					
The field of illustration will be explored using water as a medium. Special attention will be given to the organization of forms, the many aspects of color, the application of paint as texture and light, and the special effects of various instruments. Work will be done from magazine cutout collages and from actual on-location field trips.					
CAT 250 Special Problems in Commercial and Graphic Design	1	4	0	3	
Prerequisites:					
Corequisites:					
Designed for students who wish to expand their knowledge and ability in particular areas of interest. Permission to enroll must be obtained from department chairman.					
CAT 251 Special Problems in Commercial and Graphic Design	3	6	0	6	
Prerequisites:					
Corequisites:					
Course designed for the exceptional student who wishes to develop a particular project in a specific area of interest. Permission to enroll must be obtained from department chairman.					

CHEMISTRY

CHM 099 Chemical Principles

3 2 0 4

Prerequisites:

Corequisites:

Introduces basic chemical principles including atomic and molecular reactions. Designed for the student with no chemistry background.

CHM 101 Chemistry

4 2 0 5

Prerequisites:

Corequisites:

Review of the physical and chemical properties of substances; chemical changes; elements, compounds, and gases; chemical combinations; weights and measurements; theory of metals; acids, bases, salts, solvents, solutions, and emulsions; electrochemistry, electrolytes, and electrolysis; and application of chemistry to industry.

CHM 110 Chemistry for Allied Health

3 3 0 4

Prerequisites: MAT 100

Corequisites:

A survey of general, organic, and biological chemistry with emphasis placed on the aspects of chemistry that apply to physiological and biochemical processes.

CHM 250 Inorganic Chemistry

3 2 0 4

Prerequisites: MAT 101

Corequisites:

Study of inorganic chemistry including matter and energy, atoms, chemical bonds, chemical reactions and equations, gases, solutions, acids, bases, salts, ionization, and radiation.

CHM 251 Organic Chemistry

3 2 0 4

Prerequisites: CHM 250

Corequisites:

Study of organic compounds including nomenclature, properties, and reactions of hydrocarbons and derived compounds including alcohols, ethers, carbonyl compounds, amines, and amides.

CHM 252 Biochemistry

3 2 0 4

Prerequisites: CHM 251

Corequisites:

Study of the structure and intermediary metabolism of carbohydrates, lipids, proteins, nucleic acids, hormones, vitamins and enzymes.

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CIVIL ENGINEERING

CIV 101 Surveying

2 0 6 4

Prerequisites: MAT 102; ARC 107

Corequisites:

Study of the theory and practice of plane surveying, including taping, differential and profile leveling, cross sections, earthwork computations, transit stadia, and transit tape surveys. Layout of footings, floor levels, site work, and mapping included. Problem solving using computer data.

			Clinical/Credit
	Class	Lab	Shop Hours
CIV 102 Surveying	2	0	6

Prerequisites:

Corequisites:

Triangulation of ordinary precision, use of plane tablet, calculation of areas of land, land surveying, topographic surveys, and mapping are included in this course.

CIV 103 Surveying	2	0	6	4
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Prerequisites:

Corequisites:

Includes a study of route surveys by ground and aerial methods; simple, compound, reverse, parabolic, and spiral curves; geometric design of highways; and highway surveys and plans, including mass diagrams.

CIV 104 Topographic Mapping and Introduction to Photogrammetry	3	0	3	4
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Prerequisites: CIV 102

Corequisites:

Methods of making topographic surveys. The use of aerial photographs for mapping purposes. Interpretation of aerial photographs, production of photomaps, photogrammetric calculations, and ground control. Lab will emphasize field and office techniques of preparing topographic maps.

CIV 105 Architectural Materials and Methods	3	0	3	4
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Prerequisites:

Corequisites:

Materials used in the construction of architectural structures are studied. Field trips to construction sites and a study of manufacturers' specifications for materials and of properties and standard sizes of structural materials and construction techniques are included.

CIV 109 Surveying Law	3	2	0	4
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Prerequisites: CIV 103 or permission of instructor.

Corequisites:

Study of the North Carolina Statutes regarding the practice of surveying; study of conflicting elements in establishment of boundaries, riparian rights, adverse possession, preparation of abstracts, and laws affecting the drainage of land from the viewpoint of both existing and proposed channels.

CIV 110 Surveyor Practices	1	0	0	1
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Prerequisites:

Corequisites:

Study of the legal principles of surveys and resurveys, including boundary control and interpretation of deed descriptions. Legal, judicial, and historical aspects of land surveying also studied.

CIV 112 Civil Drafting	2	0	3	3
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Prerequisites:

Corequisites:

Introduction to drawing associated with Civil Engineering Technology. Topics covered include preparation of real estate plats as required for deed registration, topographic maps, contours, highway plans and profiles, and earthwork.

Class	Lab	Shop	Clinical/Credit Hours
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CIV 114 Statics

5 0 0 5

Prerequisites: MAT 102

Corequisites:

Study of forces, resultants, and types of force systems; moments; equilibrium of coplanar forces for analytical and graphic methods; stresses and reactions in simple structures; equilibrium of forces in space; and center of gravity, centroids, moment of inertia, and hydrostatic load analysis. Problem solving using computer data.

CIV 118 Construction Management and Safety

3 2 0 4

Prerequisites:

Corequisites:

Construction techniques and project planning are taught. Topics include construction financing, construction methods for residential and commercial projects as well as planning of time, equipment, and manpower for these projects. O.S.H.A. safety requirements on construction projects will be presented with classroom discussions and fieldtrips.

CIV 202 Properties of Soils

3 0 3 4

Prerequisites:

Corequisites:

Study of the origin, composition, and the basic engineering properties of soil; the significance of laboratory and field testing of soil materials; three soil classification systems in common use and procedure for soil compaction and soil stabilization; basic theory of soil strength tests, plate bearing tests, and earth embankment slope studies.

CIV 204 Surveying

2 0 6 4

Prerequisites:

Corequisites:

Study of aerial photogrammetry, applications of aerial surveys, building and road construction, surveying, lines and grades for foundation layout, building construction, bridge layout, and sewer and pipe line surveys.

200

CIV 210 Construction and Site Surveying

3 0 3 4

Prerequisites: CIV 101, 103

Corequisites:

Basic site and construction surveying. Grid topos, lot corners, building corners, and batterboards are covered in class and field exercises. The location of buildings for architectural and environmental considerations, as well as architectural plot plans are covered.

CIV 214 Subdivision Planning and Design

3 0 3 4

Prerequisites: CIV 103, 286

Corequisites:

Mapping principles and their applications in producing topographic, land, hydrographic, and photographic maps and their use in subdivision planning. Use of photogrammetry in subdivision design. Field trips will be made.

CIV 216 Strength of Materials

3 2 0 4

Prerequisites: CIV 114; MAT 103

Corequisites:

Study of fundamental stress and strain relationship, shear and bending moments, and stresses and deflections in beams and columns. Design of members also included. Problem solving using computer data.

				Clinical/Credit
	Class	Lab	Shop	Hours
CIV 219 Properties of Concrete and Asphalt	4	2	0	5

Prerequisites:

Corequisites:

Study and testing of the composition, properties, and uses of concrete and asphalt including cementing agents aggregates, admixtures, and air entrainment.

CIV 223 Codes; Contracts; and Specifications	2	0	0	2
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Prerequisites:

Corequisites:

Study of the basic principles and methods significant in contract relationships, legal considerations in construction work, and the National Building Code and local building codes. Interpreting and outlining specifications also included.

CIV 227 Construction of Roads and Pavement	3	0	3	4
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Prerequisites: CIV118, 103

Corequisites:

Construction practices for various types of road building, including soil properties, grading, subgrading, base courses, drainage, embankments, compaction, and formwork. Field inspection trips.

CIV 286 Hydraulics	3	2	0	4
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Prerequisites:

Corequisites:

Study of the flow, control, and disposal of water to protect engineering works and property. Flow through open and closed conduits, orifices, and wires. Construction and installation of drainage structures.

CRIMINAL JUSTICE

CJC 101 Introduction to Criminal Justice	5	0	0	5
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Prerequisites:

Corequisites:

Designed to provide an overview of the criminal justice system including its philosophy, objectives, and legal limitations in a democratic society.

CJC 102 Legal Research I	1	2	0	2
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Prerequisites:

Corequisites:

Methods of legal research; proper citation of authority; acquaintance with legal treaties, texts, and reports; and the use of Shepard's Citations.

CJC 109 Interviewing	3	0	0	3
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Prerequisites: Permission of instructor or coordinator

Corequisites:

Designed to provide a knowledge of the fundamental techniques employed in interviewing. Introduction to interrogation and overview of sources of information available to investigators.

CJC 112 Motor Vehicle Laws	3	0	0	3
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Prerequisites:

Corequisites:

Study of the traffic enforcement codes with primary emphasis on North Carolina law.

201

				Clinical/Credit
		Class	Lab	Shop Hours
CJC 113 Corrections Law		3	0	0
Prerequisites:				3
Corequisites:				
Study of the laws which deal with the rights, custody, and control of individuals under the supervision of the judicial system.				
CJC 115 Criminal Law I		3	0	0
Prerequisites:				3
Corequisites:				
Study of criminal laws dealing with offenses against the person. Emphasis is placed on North Carolina law.				
CJC 116 Criminal Law II		3	0	0
Prerequisites: CJC 115 or permission of instructor or coordinator				3
Corequisites:				
Study of criminal laws dealing with offenses against property. Emphasis placed on North Carolina law.				
CJC 120 Principles of Organization		3	0	0
Prerequisites:				3
Corequisites:				
Introduction to the principles of organization and administration with emphasis upon theories and techniques utilized in public agencies.				
CJC 121 Personnel Supervision		3	0	0
Prerequisites: CJC 120 or permission of instructor or coordinator				3
Corequisites:				
Study of the principles and theories employed in modern personnel supervision.				
CJC 125 Criminal Procedures and North Carolina Court System		3	0	0
Prerequisites:				3
Corequisites:				
Designed to provide the student with a knowledge of legal aspects of criminal procedures from the initial investigation through the final appeal.				
CJC 151, 152 Readings in Criminal Justice		1	0	0
Prerequisites:				1
Corequisites:				
Designed for students who wish to specialize or expand their knowledge in certain areas of criminal justice. under the supervision of police science faculty members, the student studies materials relative to concepts in criminal justice and writes critical analyses. Times for students' independent study and individual conferences are allotted with the supervising instructor.				
CJC 204 Evidence Photography		3	0	3
Prerequisites:				4
Corequisites:				
Study of photographic principles and their application to evidence photography. Students develop skills in photographic techniques and the use of various types of equipment through lab practice.				

				Clinical/Credit
	Class	Lab	Shop	Hours
CJC 205 Evidence	3	0	0	3

Prerequisites:

Corequisites:

Instruction covers the legal aspects of the various kinds and degrees of evidence and the rules governing the admissibility of evidence in court.

CJC 210 Techniques of Investigation	4	2	0	5
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Prerequisites: CJC 204, 211

Corequisites:

Course designed to instruct the student in the fundamental concepts of investigation.

CJC 235 Forensic Science	3	2	0	4
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Prerequisites: CHM 101

Corequisites:

Survey of the physical sciences and their application to the field of investigation with emphasis on evidence which is compared chemically.

COOPERATIVE EDUCATION

COE 101 A, B* Cooperative Education Field Experience	0	10	0	1
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Prerequisites:

Corequisites:

Through Cooperative Education, students work in part-time or full-time positions related to their programs of study or career interests and for employers selected and/or approved by the institution. Students are supervised by a faculty member or cooperative education coordinator from the institution. Generally, a student may receive a maximum of two credit hours during any one quarter, but may not receive more than the number allowable toward graduation in the chosen degree or diploma. (See Cooperative Education pg. 60)

COE 102 A, B Cooperative Education Field Experience	0	0	0	0	203
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Prerequisites:

Corequisites:

COE 103 Cooperative Education Field A,B Experience	0	0	0	0
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Prerequisites:

Corequisites:

COE 104 A, B Cooperative Education Field Experience	0	0	0	0
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Prerequisites:

Corequisites:

COE 105 A, B Cooperative Education Field Experience	0	0	0	0
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Prerequisites:

Corequisites:

				Clinical/Credit
	Class	Lab	Shop	Hours
COE 106 A, B Cooperative Education Field Experience	0	0	0	0
Prerequisites:				
Corequisites:				
COE 107 A, B Cooperative Education Field Experience	0	0	0	0
Prerequisites:				
Corequisites:				

COSMETOLOGY

COS 1101 Cosmetology I	0	0	40	12
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Prerequisites:

Corequisites:

Includes a study of professional ethics, grooming and personality development; and sterilization, sanitation, first aid, and bacteriology. The practical work is devoted to fingerwaving, pin curling, roller curling, manicuring, marcelling, hair cutting, and hair relaxing.

COS 1102 Cosmetology II	0	0	40	12
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Prerequisites:

Corequisites:

Study of the theory and practical application of permanent waving (cold and heat wave), tinting and bleaching, anatomy, facials, and scalp treatments.

COS 1103 Cosmetology III	0	0	40	12
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Prerequisites:

Corequisites:

Study of the theory and practical application of hair styling and wig care; disorders of skin, nails, and hair; electricity; chemistry; and operational management.

204

COS 1104 Cosmetology IV	0	0	20	6
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Prerequisites:

Corequisites:

Study of the theory and practical application of advanced hair styling, operational management, and salesmanship.

COS 1105 Cosmetology IA	0	0	20	6
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Prerequisites:

Corequisites:

Includes a study of professional ethics, grooming, and personality development. The practical work is devoted to fingerwaving, pin curling, roller curling, and manicuring. COS 1105 and 1106 are equivalent to COS 1101.

COS 1106 Cosmetology IB	0	0	20	6
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Prerequisites:

Corequisites:

Continues all topics introduced in 1105 plus sterilization, sanitation, first aid, and bacteriology. The practical work is devoted to continuation of practical work introduced in 1105 and marcelling, hair cutting, and hair relaxing are introduced. COS 1105 and 1106 are equivalent to COS 1101.

				Clinical/Credit
	Class	Lab	Shop	Hours
CIS 1107 Cosmetology IIA	0	0	20	6

Prerequisites:

Corequisites:

Study of the theory and practical application of permanent waving (cold and heat wave) tinting and bleaching. COS 1107 and 1108 are equivalent to COS 1102.

COS 1108 Cosmetology IIB	0	0	20	6
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Prerequisites:

Corequisites:

Continues all topics introduced in 1107 plus anatomy, facial, and scalp treatment. COS 1107 and 1108 are equivalent to COS 1102.

COS 1109 Cosmetology IIIA	0	0	20	6
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Prerequisites:

Corequisites:

Study of the theory and practical application of hairstyling and wig care; disorders of skin, nails, and hair. COS 1109 and 1110 are equivalent to COS 1103.

COS 1110 Cosmetology IIIB	0	0	20	6
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Prerequisites:

Corequisites:

Continues all topics introduced in COS 1109 plus electricity; chemistry, and operational management. COS 1109 and 1110 are equivalent to COS 1103.

CORRECTIONAL SCIENCE

CSC 201 Marriage and the Family	3	0	0	3
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Prerequisites:

Corequisites:

Study of courtship, engagement, marriage, parenthood, and family living in contemporary American society. Emphasis is placed on social, economic, sexual, and legal aspects of family living and the adjustment of individuals to their respective roles in the family.

205

CSC 202 Introduction to Recreation Services	2	2	0	3
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Prerequisites:

Corequisites:

This course is designed to introduce the student to the historical and philosophical foundations of leisure and recreation. The student will develop concepts concerning recreation, the meaning of leisure and recreation, the socioeconomic movements which have affected the growth and development of recreation, the economic importance of recreation, the social institutions providing recreation services, and the types of areas and facilities used in recreation. The student will also spend two hours a week doing practical work in an appropriate setting to meet the laboratory requirement.

CSC 203 Survey of Corrections	3	0	0	3
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Prerequisites:

Corequisites:

Introduction and overview of fundamental processes, trends, and practices of juvenile and adult probation, institutional treatment, parole, and contemporary community-based correctional programs, both public and private. Review of the history and philosophy of corrections, with emphasis on the constitutional rights of offenders included.

				Clinical/Credit
	Class	Lab	Shop	Hours
CSC 207 Confinement Facilities Administration	3	0	0	3

Prerequisites:

Corequisites:

Supervision and administration of confinement facilities, involving techniques of inmate supervision, security, medical care of prisoners, food preparation, sanitation, and various legal aspects controlling detention facilities, correctional institutions, and jails.

CSC 213 Dynamics of Substance Abuse	3	0	0	3
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Prerequisites:

Corequisites:

Introduction to the problem of substance abuse (alcohol, drugs, narcotics) in society. Designed to equip criminal justice, social service, and other human service workers with increased knowledge concerning history and classification of drugs of abuse, social impact and physical and psychological results of their abuse, and the various facilities and treatment modalities being used.

CSC 224 Rehabilitation Techniques	3	0	0	3
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Prerequisites:

Corequisites:

Explores the different avenues of rehabilitation. New and innovative techniques of rehabilitation emphasized as they relate to successful methods.

CSC 226 Administration and Interpretation of Tests	3	0	0	3
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Prerequisites:

Corequisites:

Study of the rationale for group and individual testing. Includes the administration as well as the uses of tests of intelligence, interest, and achievement in educational and career planning. Practicum experience closely correlated with classroom activities so that students may apply knowledge and skills to actual on-the-job learning situations.

206

CSC 229 Career Information	2	2	0	3
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Prerequisites:

Corequisites:

Study of the career and educational information available to aid students in career decision-making. Includes a study of the world of work, sources of occupational information, and sociological and psychological factors which influence career planning. Practicum experience correlated with classroom activities so that students apply knowledge and skills to actual on-the-job learning situations.

CSC 234 Community Based Corrections	3	0	0	3
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Prerequisites:

Corequisites:

Exploration of philosophy and programs of juvenile and adult probation supervision, aftercare parole, halfway homes, work and educational release-furlough as well as executive clemency and interstate compact practices. Dilemma of surveillance-custody/control factors vs. supervision-treatment examined. Introduction to classification of offenders, followed by analysis of possible treatments. Citizen-agency relationships investigated, along with potentials of utilizing citizen volunteer programs.

DRAFTING

DFT 101 Technical Drafting

1 0 3 2

Prerequisites:

Corequisites:

Introduction to the field of drafting. Includes a study of drawing principles and practices for print reading and describing objects in the graphic language. Basic skills and techniques of drafting included are the use of drafting equipment, lettering, freehand orthographic and pictorial sketching, geometric instruction, orthographic instruction, drawing of principal views, and standards and practices of dimensioning. The principles of isometric, oblique, and perspective drawing are introduced.

DFT 104 Blueprint Reading: Mechanical

3 0 0 3

Prerequisites:

Corequisites:

Interpretation and reading of blueprints. Information on the basic principles of the blueprint, including lines, dimensioning procedures, and notes.

DFT 105 Blueprint Reading and Sketching

3 0 0 3

Prerequisites: DFT 104

Corequisites:

Further practice in interpretation of blueprints as they are used in industry. Study of prints supplied by industry and making plans of operation. Introduction to drafting room procedures and sketching as a means of passing on ideas.

DFT 106 Blueprint Reading and Technical Sketching

2 0 0 2

Prerequisites:

Corequisites:

General course in interpreting and reading blueprints. Information includes the basic principles of the blueprint, lines, views, dimensioning procedures, and notes. Emphasis placed on reading of blueprints common to the building systems. Sketching as a means of passing on ideas and information introduced.

207

DFT 107 Technical Drafting

1 3 0 2

Prerequisites: ELN 100

Corequisites:

In addition to basic drafting skill, emphasis will be on applications in the electronics field. Specialized experience will be included which directly relates to the electronics industry, such as types of drawings common to electronics, special symbols used, schematic diagrams, and layout diagrams with an emphasis on printed circuit work.

DFT 110 ComputerAided Drafting I CAD

1 0 3 2

Prerequisites: BCP 112

Corequisites:

Study of drafting fundamentals and use of instruments associated with each phase or drafting concept with continuous reference to computer-aided drafting throughout the process. Final week will be devoted to computeraided drafting.

				Clinical/Credit
	Class	Lab	Shop	Hours
DFT 111 ComputerAided Drafting II CAD	1	0	3	2

Prerequisites: DFT 110

Corequisites:

Practical Exercises to guide students to an understanding and application of CAD menus and symbol libraries. Emphasize proficiency in using the CAD system and its advanced features for problem solving as they relate to using the CAD plotter for producing finished drawings.

DFT 230 Structural Drafting	3	0	6	5
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Prerequisites: ARC 220, CIV 105

Corequisites:

Concentrated study and drawing of structural plans with emphasis on details and shop drawings of the structural components of buildings, including steel, reinforced concrete, and timber structures. Appropriate symbols, conventions, dimensioning practices, and notes used by the draftsman included. Emphasis also on drafting appropriate drawings for fabrication and erection of the structural components.

DFT 233 Codes and Specific	1	0	3	2
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Prerequisites:

Corequisites:

Study of building codes and their effect on specifications and drawings. Covers North Carolina building code books. DFT 233 together with DFT 234 are equivalent to DFT 235.

DFT 234 Contract Documents	2	0	0	2
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Prerequisites:

Corequisites:

Study of contract documents to determine client-architect-contractor responsibilities, duties, and mutual protection agreements. DFT 233 together with DFT 234 are equivalent to DFT 235.

DFT 235 Codes, Specifications, and Contract Documents	3	3	0	4
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Prerequisites: ARC 220

Corequisites:

Study of building codes and their effect on specifications and drawings. Purpose and writing of specifications and their legal and practical application to working drawings are studied. Contract documents analyzed and studied to determine client-architect-contractor responsibilities, duties, and mutual protection.

DFT 236 Construction Estimating and Field Inspecting	3	3	0	4
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Prerequisites: CIV 105, ARC 107

Corequisites:

Includes interpretation of working drawings for a project, preparation of material and labor quantity surveys from plans and specifications, and approximate and detailed estimates of costs. Students study material take off, labor take off, subcontractors' estimates, overhead costs, and bid and contract procedures. Detailed inspection of the construction by comparing the finished work to the specifications is also included.

DFT 1103 Blueprint Reading: Mechanical	0	0	3	1
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Prerequisites:

Corequisites:

Interpretation and reading of blueprints as they relate to air conditioning, heating, and refrigeration.. Information on the basic principles of the blueprint, lines, views, dimensioning procedures, and notes.

			Clinical/Credit
	Class	Lab	Shop Hours

DFT 1104 Blueprint Reading: Mechanical **3 0 0 3**

Prerequisites:

Corequisites:

Interpretation and reading of blueprints as they relate to machining and welding metal. Information on the basic principles of the blueprint, lines, views, dimensioning procedures, and notes.

DFT 1105 Blueprint Reading: Mechanical **3 0 0 3**

Prerequisites: DFT 1104

Corequisites:

Further practice on interpretation of blueprints as they are used in industry. Study of prints supplied by industry and making plans of operations. Introduction to drafting room procedures, and sketching as a means of passing on ideas.

DFT 1106 Blueprint Reading: Mechanical **3 0 0 3**

Prerequisites: DFT 1105

Corequisites:

Advanced blueprint reading and sketching as related to detail and assembly drawings used in machine shops. Interpretation of drawings of complex parts and mechanisms for features of fabrication, construction, and assembly.

DFT 1110 Blueprint Reading: Building Trades **3 0 0 3**

Prerequisites:

Corequisites:

Principles of interpreting blueprints and specifications common to the building trades. Development of proficiency in making three-dimensional views and pictorial sketches.

DFT 1111 Blueprint Reading and Sketching I **3 0 0 3**

Prerequisites: DFT 1110

Corequisites:

Principles of interpreting blueprints and specifications common to the building trades. Practice in reading details for grades, foundations, walls, elevations, chimneys, fireplaces, arches, and cavity wall construction. Development of proficiency in making three-dimensional views and pictorial sketches.

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DFT 1112 Blueprint Reading and Sketching II **3 0 0 3**

Prerequisites: DFT 1111

Corequisites:

Designed to develop abilities in reading complex drawings in the masonry field. Blueprints of residential and commercial buildings studied with emphasis on the plot plan, floor plan, basement and/or foundation plan, walls, and various detailed drawings of masonry work.

**DFT 1113 Blueprint Reading and Sketching:
Electrical** **3 0 0 3**

Prerequisites: DFT 1110

Corequisites:

Interpretation of schematics, diagrams, and blueprints applicable to electrical installations with emphasis on electrical plans for domestic and commercial buildings. Sketching schematics, diagrams, and electrical plans for electrical installations using appropriate symbols and notes according to the applicable codes included.

			Clinical/Credit
Class	Lab	Shop	Hours

DFT 1114 Blueprint Reading and Sketching: 3 0 0 3
Masonry

Prerequisites: DFT 1112

Corequisites:

A study of different types of structural designs and details for commercial construction.
A study of different construction trades and how each trade relates to the masonry trade.

DFT 1116 Blueprint Reading: Air Conditioning 1 0 3 2

Prerequisites: DFT 1104

Corequisites:

A specialized course in drafting for the air conditioning, heating, and refrigeration student. Emphasis will be placed on reading of blueprints that are common to the trade: blueprints of mechanical assembly drawings, wiring diagrams and schematics, floor plans, components, heating system plans including duct and equipment layout plans, and shop sketches. The student will make tracings of floor plans and layout air conditioning systems.

DFT 1117 Blueprint Reading: Welding 3 0 0 3

Prerequisites: DFT 1104

Corequisites:

Study of trade drawings in which welding procedures are indicated. Interpretation, use, and application of welding symbols, abbreviations, and specifications.

DFT 1118 Pattern Development and Sketching 3 0 0 3

Prerequisites:

Corequisites:

Continued study of welding symbols, methods used in layout of sheet steel, sketching of projects and jigs, and hold devices involved in welding. Special emphasis placed on developing pipe and angle layouts by the use of patterns and templates.

210

DFT 1151 Computer Aided Drafting 2 4 0 4

Prerequisites:

Corequisites:

This course introduces the student to the uses of computers for drafting. Upon completion the student should be able to: (1) identify the components of CAD systems and define their uses; (2) use the commands of the CAD system software; (3) draw points, lines, curves, and areas; (4) draw objects in orthographic projection, and (5) draw, dimension and plot working drawings of simple mechanical devices.

ECONOMICS

ECO 108 Consumer Economics 3 0 0 3

Prerequisites:

Corequisites:

Designed to help students use their resources of time, energy, and money. Students given opportunities to build useful skills in buying, managing finances, increasing resources, and understanding the economy.

			Clinical/Credit
	Class	Lab	Shop Hours
ECO 150 Economics I	3	0	0

Prerequisites:

Corequisites:

Fundamental principles of microeconomics including the institutions and practices by which people gain a livelihood. Emphasis placed on basic conditions for the market system and how the market process functions in the real world. Supply and demand, price and cost, and current economic problems stressed.

ECO 151 Economics II

3 0 0 3

Prerequisites:

Corequisites:

Continuation of a study of the principles of economics, with emphasis on macro-issues such as national output and income, international trade and finance, and current economic problems.

ECO 152 Economics III

3 0 0 3

Prerequisites: ECO 151

Corequisites:

Continuation of the study of basic economic principles. Emphasis placed on current macro-and microeconomics problems and application of economic principles to short-range forecasting.

ECO 201 Cost Benefit Analysis

3 0 0 3

Study of methods for project evaluation, including decision criteria, identifying and quantifying cost and benefits, and procedures for performing a cost benefit analysis.

BUSINESS COMPUTER PROGRAMMING

EDP 101 Personal Computer Familiarization 2 2 0 3

211

Prerequisites:

Corequisites:

Presents an overview of personal computers. Topics include computer hardware, operating systems, operations, work processing, spread sheets, graphics, and introduction to BASIC programming.

*Fee of \$2.50 per lab hour

EDP 112 BASIC I

2 2 0 3

Prerequisites:

Corequisites:

A general introduction to microcomputers and their capabilities and to the BASIC programming language.

EDP 113 BASIC II

2 4 0 4

Prerequisites: BCP 112 or any programming language

Corequisites:

Reviews the BASIC language conventions and introduces file processing for business and personal use.

Class	Lab	Shop	Clinical/Credit Hours
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EDP 114 Introduction to Computer Concepts 3 0 0 3

Prerequisites:

Corequisites:

Introductory course in computers for students pursuing degree in data processing or desiring a general non-technical knowledge of terminology and concepts. No previous knowledge or experience in data processing required.

EDP 115 FORTRAN

2 4 0 4

Prerequisites:

Corequisites:

Fundamental course in FORTRAN programming. The FORTRAN language structure, statements, and programming methods and techniques are studied. Students develop program logic and write FORTRAN programs for solving sample problems.

Fee of \$2.50 per lab hour

EDP 118 COBOL I

2 4 0 4

Prerequisites:

Corequisites:

Designed to provide basic training in structured COBOL programming. The COBOL language programming methods and techniques are studied. Students develop program logic and write structured COBOL programs for solving sample problems.

EDP 119 COBOL II

2 4 0 4

Prerequisites: BCP 118

Corequisites:

Continuation of training in COBOL programming techniques and methods. Designed to provide students with the opportunity to apply skills learned in COBOL I to typical business applications with emphasis on arrays, tables, and control breaks, and disc file organization.

EDP 130 Beginning Graphics for Microcomputers

2 2 0 3

Prerequisites: BCP 112 or familiarity with BASIC and microcomputers

Corequisites:

Introduces monochromatic and color X, Y axes plotted graphics, shape tables, forms design, business graphics such as bar charts, and icon and mouse-generated graphics using a package.

EDP 140 Pascal

2 2 0 3

Prerequisites: BCP 113 or permission of instructor

Corequisites:

Beginning course in Pascal including basic syntax, input/output, calculations, IF's, CASE, and multi-dimensional arrays through the use of structured logic.

Fee of \$2.50 per lab hour

EDP 145 Programming Database Software

2 2 0 3

Prerequisites: Completion of a programming course or approval of instructor.

Corequisites:

Uses Level 1 menus as an introduction, with the major emphasis being devoted to reports, queries, forms, etc.

212

				Class	Lab	Clinical/Credit Shop Hours
EDP 146 Advanced Programming with Database Software				2	4	0 4

Prerequisites: EDO 145

Corequisites:

Students will write a complete application using database software. The course includes advanced file processing, error trapping, screens, shortcuts and other advanced programming techniques.

EDP 147 Personal Computer Operating System	3	2	0	4
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Prerequisites: EDP 112 and EDP 113

Corequisites:

A study of an operating system on a personal computer. The student will develop a basic understanding of the relationship between hardware architecture, system software and application software. The student will also be trained in using the various commands that are a part of the operating systems.

EDP 148 C Language	2	2	0	3
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Prerequisites: EDP 112, 113, 147, or permission of instructor

Corequisites:

C Language will be introduced as a tool for structured programming. Its capability of manipulating bits and memory will be discussed. Topics include variables, constants, operators, expressions, program control statements, function input and outputs, pointer, arrays, structures, unions, and user-defined types.

EDP 150 Introduction to Computers	5	0	0	5
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Prerequisites:

Corequisites:

Presents the basic concepts of data processing fundamentals, including programming business economics problems for a computer.

EDP 211 Applications I	2	4	0	4
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213

Prerequisites:

Corequisites:

Designed to provide students with sufficient knowledge in computer methodology to permit the use of computers in business. Emphasis centers on the development of a typical business computer, including complete documentation, using a team programming approach.

*Fee of \$2.50 per lab hour

EDP 212 Applications II	2	4	0	4
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Prerequisites:

Corequisites:

Emphasizes the preparation and utilization of operations data used in a typical business, case problems involving systems established for collecting the data, and generating information for organizational units. Audit trails enabling the tracing of transactions back to the original sources or forward to the first report analyzed. Simulated data used to demonstrate programming techniques required in processing management information. Structure of data files receives major emphasis. Students design, program, and test an entire business application with minimum assistance.

				Clinical/Credit
	Class	Lab	Shop	Hours
EDP 214 Computer Systems I				4 0 0 4
Prerequisites:				
Corequisites:				
Study of computer systems involving concepts of architecture and programming such as channels, interrupts, multiprogramming, job scheduling, file devices, and file organization.				
EDP 223 Introduction to RPG II				2 4 0 4
Prerequisites:				
Corequisites:				
Study of report generator language appropriate for use with a small computing system. Students develop program logic and write programs to solve appropriately related sample business problems.				
EDP 224 RPG II				2 4 0 4
Prerequisites: EDP 223				
Corequisites:				
Continuation of EDP 223 with special emphasis on applications and programming procedures of the smaller business.				
EDP 230 Internship I				0 10 0 5
Prerequisites:				
Corequisites:				
Cooperative endeavor between Pitt Community College and industry to give students on-the-job training experience. Students work in computer operations for a given company, on location, for a minimum of 10 hour per week.				
EDP 231 Internship II				0 10 0 5
Prerequisites:				
Corequisites:				
Continuation of the on-the-job training begun in EDP 230.				
EDP 233 Customer Information Control System CICS				2 4 0 4
Prerequisites:				
Corequisites:				
Provides instruction in writing telecommunications application programs to run under control of the Customer Information Control System (CICS). Also, students learn the concepts and operation of the information display system to fully utilize the display format facility of the CICS.				
EDP 234 Inactive Workstation Programming	2	4	0	4
Prerequisites: EDP 224				
Corequisites:				
Designed to provide the student with sufficient knowledge of on-line programming techniques for the IBM System/36 computer. Emphasis on terminal utilization, screen design, screen generators, and coding rules and techniques.				
EDP 240 Data Processing Practice I				0 10 0 1
Prerequisites:				
Corequisites:				
Cooperative endeavor between Pitt Community College and industry to give students on-the-job training experience. Students work in computer operations for a given company, on location, for a minimum of 10 hour per week.				

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				Clinical/Credit
	Class	Lab	Shop	Hours
EDP 241 Data Processing Practice II	0	10	0	1

Prerequisites:

Corequisites:

Continuation of the on-the-job training begun in EDP 240.

*Fee of \$2.50 per lab hour

EDUCATION

EDU 102 Child Health, Safety, and Nutrition	5	0	0	5
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Prerequisites:

Corequisites:

Study of the factors influencing a young child's health with emphasis on safety precautions and treatment procedures. Also, a focus on nutrition concepts and requirements for the child. Student will develop nutrition and health-related activities for young children.

EDU 103 Preschool Orientation	1	0	6	3
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Prerequisites:

Corequisites:

Supervised learning activities related to policies and procedures used in operating a child development center.

EDU 104 Preschool Observation	1	0	6	3
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Prerequisites: EDU 103

Corequisites:

Supervised learning activities related to observing children individually and in group activities.

EDU 106 Practicum in Elementary School	1	0	15	6
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Prerequisites:

Corequisites:

Program of supervised practices as an assistant in the education of children ages five to eight.

EDU 107 Practicum in Preschool Experiences	1	0	15	6
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Prerequisites:

Corequisites:

Program of supervised practice in the care and education of preschool children.

EDU 108 Early Childhood Curriculum	5	0	0	5
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Prerequisites:

Corequisites:

Examination of early childhood curriculum areas. Focus on age appropriate activities to enhance the curiosity, interest, knowledge, and abilities of young children.

EDU 109 Guiding Young Childrens Behavior	3	0	0	3
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Prerequisites:

Corequisites:

Examination of direct and indirect guidance techniques in working with young children.

				Clinical/Credit
		Class	Lab	Shop Hours
EDU 111 Language Arts Techniques		3	0	0
Prerequisites:				3
Corequisites:				
Study of the components of language arts and language acquisition of young children. Includes exploration of activities and materials that facilitate development.				
EDU 115 Audiovisual and Media Instruction		3	0	0
Prerequisites:				3
Corequisites:				
Introduces the multi-media approach to teaching young children. Provides experiences in the use of audiovisual equipment and duplicating machines. Includes experience with a laminating process and making transparencies and other visual aids while developing science and social studies units.				
EDU 201 Childrens Issues in Todays Society		1	0	0
Prerequisites:				1
Corequisites:				
Discussion of current topics relating to children.				
EDU 202 Discipline Strategies in the Classroom		3	0	0
Prerequisites:				3
Corequisites:				
Survey of various approaches to discipline. Attention given to the more popular models with practical guides for selecting a positive and personal approach.				
EDU 203 Exceptional Children		5	0	0
Prerequisites:				5
Corequisites:				
Introductory course for those who may work with exceptional children. Examination of the characteristics and problems relating to educating typical children.				
EDU 204 Parent Education		1	0	0
Prerequisites:				1
Corequisites:				
A self-directed study for students who wish to expand their knowledge in working with parents. Under supervision of faculty members, students will plan a project and investigate information relative to parenting today.				
EDU 224 ABC Seminar Practicum: Elementary School		1	0	15
Prerequisites:				6
Corequisites:				
The seminar-practicum experience involves students with the learning processes in an elementary school. These experiences enable the students to gain exposure in many facets in education as well as to do specialized study in given areas. Through "learning by doing." the student may correlate knowledge and skills to an actual teaching situation.				
EDU 225 ABC Seminar Practicum: Preschool		1	0	15
Prerequisites:				6
Corequisites:				
The practicum and seminar experience involves students with the learning process in a variety of educational settings. These experiences enable the students to gain exposure to many facets of education as well as to do specialized study in given areas.				

Class	Lab	Shop	Clinical/Credit Hours
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Through "learning by doing," students correlate knowledge and skills to actual teaching situations.

EDU 229 Infant Care Activities **3 0 0 3**

Prerequisites:

Corequisites:

Exploration and development of curriculum, activities, and materials for infants. Also, an examination of ways to promote development through caregiving activities.

EDU 231 Creative Activities **5 0 0 5**

Prerequisites:

Corequisites:

Development of teacher-made materials and activities for early childhood curriculum areas. The student will establish and organize a preschool file of resources and materials.

EDU 232 Preschool Administration and Supervision **3 0 0 3**

Prerequisites:

Corequisites:

Designed to assist students in establishing policies and procedures for the operation of a center for the daily group care of young children.

EDU 233 Curriculum Planning for the Young Child **3 0 0 3**

Prerequisites:

Corequisites:

Examination of curricula, schedules, and classroom arrangement. Emphasis on developing and writing lesson plans and behavioral objectives.

EDU 240 Organizing the CDA Portfolio **3 0 0 3**

Prerequisites: EDU 104, 225A, 225B

Corequisites:

Develops a system whereby the CDA candidate/intern documents evidence of demonstrated competence in thirteen functional areas of child caregiving.

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ELECTRICITY

ELC 101 Fundamentals of Electricity I **4 4 0 6**

Prerequisites:

Corequisites: MAT 101

Study of the elementary principles of electricity, including basic electric units, Ohm's Law, Kirchoff's Law, network theorems, magnetics, basic electrical measuring instruments, inductance, capacitance, sine wave analysis, and non-resonant resistive, inductive, and capacitive networks.

ELC 102 Fundamentals of Electricity II **4 4 0 6**

Prerequisites: ELC 101

Corequisites:

Study of series and parallel resonant-circuit analysis, resonant and non-resonant transformer analysis, basic diode power analysis, and an introduction to electro-mechanical devices.

			Clinical/Credit
	Class	Lab	Shop Hours
ELC 112 Alternating and Direct Current	2	0	6

Prerequisites:

Corequisites:

Study of the electrical structure of matter; the electron theory; and the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. Ohm's Law and Kirchoff's Law and the relationships and applications of electricity to modern industrial machinery are included.

ELC 113 Alternating Current and Direct Current Machines and Controls	2	0	0	6
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Prerequisites: ELC 112

Corequisites:

Study of the fundamental concepts in single and polyphase alternating current circuits, voltages, current, power measurements, transformers, and motors. Instruction given in the use of electrical test instruments in circuit analysis. Includes a study of the basic concepts of AC and DC machines; simple system controls; and an introduction to the types of controls used in small appliances, including thermostats and timers or sequencing switches.

ELC 119 Industrial Electrical Controls and Systems	2	0	6	4
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Prerequisites: ELC 113

Corequisites:

Fundamental concepts and applications of electrical, pneumatic, and hydraulic control systems. Controls, protecting devices, and industrial applications emphasized.

ELC 121 Electrical Troubleshooting	1	0	3	2
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Prerequisites: ELC 112 and 113

Corequisites:

Utilization of all service tools, instruments, and equipment necessary to analyze all aspects of service and repair, using the procedures employed in service and repair in industry. Students expected to demonstrate repair, using the procedures employed in service and repair in industry. Students expected to demonstrate ability and initiative in the troubleshooting problems presented.

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ELC 210 Rotating Devices	2	2	0	3
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Prerequisites: ELC 102 and PHY 102

Corequisites:

Introduction to electrical machinery. Includes an analysis of AC and DC motor and generator principles, synchros and servomechanisms, and alternators and dyamotors. Basic theory, operation, and maintenance of these devices and systems emphasized.

ELC 1101 Estimating for Electrical	2	0	0	2
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Prerequisites:

Corequisites:

Covers the basic principles of estimating for electrical trades. Includes take-off of material specifications and price gathering.

ELC 1102 Applied Electricity	3	0	3	4
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Prerequisites:

Corequisites:

The use and care of test instruments and equipment used in servicing electrical apparatus for air conditioning and refrigeration installations. Electrical principles and procedures for troubleshooting of the various electrical devices used in air conditioning, heating,

Class	Lab	Shop	Clinical/Credit Hours
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and refrigeration equipment. Included will be transformers, various types of motors and starting devices, switches, electrical heating devices and wiring.

ELC 1103 Fundamentals of Basic Electricity 3 0 0 3

Prerequisites:

Corequisites:

An introductory course in electrical circuits to illustrate voltage, current, and power in a variety of circuit configurations including proper circuit placement of meters. This course will be taught using the Apple IIe computer with an interactive software package. ELC 1103, 1104, and 1105 are equal to ELC 1110.

ELC 1104 Fundamentals of DC Circuit Analysis 3 0 0 3

Prerequisites:

Corequisites:

An introductory course teaching the fundamental concepts of direct current circuits using the Apple IIe computer with an interactive software package. Both tutorial and drill and practice problems will be included. ELC 1103, 1104, and 1105 are equal to ELC 1110.

ELC 1105 Fundamentals of AC Circuit Analysis 3 0 0 3

Prerequisites: ELC 1103, 1104 or equivalent

Corequisites:

An introductory course teaching the fundamentals of alternating current circuits. Included is extensive coverage of inductive and capacitive circuits driven with either AC or DC sources. This course will be taught using the Apple IIe computer with an interactive software package. ELC 1103, 1104, and 1105 are equal to ELC 1110.

ELC 1108 DC Current 3 0 6 5

Prerequisites:

Corequisites:

Study of the electrical of matter and electron theory, and the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. Includes and analysis of direct current circuits by Ohm's Law and Kirchoff's Law and a study of the sources of direct current voltage potentials. ELC 1108 and ELC 1109 series is equivalent to ELC 1112.

ELC 1109 AC Current **2 0 6 4**

Prerequisites: ELC 1108

Corequisites:

Fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance; and an analysis of alternating current circuits. ELC 1108 and ELC 1109 series is equivalent to ELC 1112.

ELC 1110 Direct Current Theory and Practice 5 0 12 9

Prerequisites:

Corequisites:

Study of the structure of matter and the electron theory; the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. Includes an analysis of direct current circuits by Ohm's Law and sources of direct current potentials. ELC 1103, 1104 and 1105 are equal to ELC 1110.

				Clinical/Credit
	Class	Lab	Shop	Hours
ELC 1111 Alternating Current Theory and Practice	5	0	12	9

Prerequisites:

Corequisites:

Study of the fundamental concepts of alternating current, including the generation of sine waves and other non-sinusoidal waveforms, reactance, impedance, power, resonance, and alternating current circuit analysis.

ELC 1112 Direct and Alternating Current	5	0	12	9
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Prerequisites:

Corequisites:

Study of the electrical structure of matter and electron theory, and the relationship between voltage, current, and resistance in series, parallel, and series-parallel circuits. Includes an analysis of direct current circuits by Ohm's Law and Kirchoff's Law and a study of the sources of direct current voltage potentials; fundamental concepts of alternating current flow, reactance, impedance, phase angle, power, and resonance; and an analysis of alternating current circuits.

ELC 1113 Alternating Current and Direct Current Machines and Controls	5	0	12	9
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Prerequisites: ELC 1112

Corequisites:

Study of the fundamental concepts in single and polyphase alternating current circuits, voltages, currents, power measurements, transformers, and motors. Instruction is given in the use of electrical test instruments in circuit analysis. Includes a study of the basic concepts of AC and DC machines and simple system controls and an introduction to the types of controls used in small appliances, including thermostats and timers or sequencing switches.

ELC 1114 Electrical Safety	1	0	0	1
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Prerequisites:

Corequisites:

Emphasis on the use of electrical test equipment to insure job safety and to prevent shock. Appropriate first-aid techniques for treating shock victims also included.

220

ELC 1115 Machine Control	3	0	6	5
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Prerequisites: ELC 1109

Corequisites:

Study of the fundamental concepts in single and polyphase alternating current circuits, voltages, current, power measurements, transformers, and motors. Instruction is given in the use of electrical test instruments in circuit analysis. ELC 1115 and ELC 1116 series is equivalent to ELC 1113.

ELC 1116 Machine Control	2	0	6	4
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Prerequisites: ELC 1115

Corequisites:

Study of the basic concepts of AC and DC machines and simple system controls and an introduction to the types of controls used in small appliances, including thermostats and timers or sequencing switches. ELC 1115 and ELC 1116 series is equivalent to ELC 1113.

ELC 1117 Programmable Controllers	4	0	3	5
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Prerequisites: DFT 113 or work experience evaluated by Department Chairperson.
Corequisites:

Basic study in programmable controllers, including programming, troubleshooting, and applications for motor control, alarm systems and environmental systems found in most industries.

				Clinical/Credit
	Class	Lab	Shop	Hours
ELC 1122 Residential Wiring I	2	0	6	4

Prerequisites: DFT 1113

Corequisites:

Study of the fundamentals of residential wiring, including blueprint reading, planning, layout, and installation of wiring in residential applications such as services, switchboard, lighting, fusing, wire sizes, branch circuits, and conduits. ELC 1122 and ELC 1123 series is equivalent to ELC 1124.

ELC 1123 Residential Wiring II	4	0	3	5
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Prerequisites: ELC 1122

Corequisites:

Application of National Electric Code Regulations in actual building mockups. ELC 1122 and ELC 1123 series is equivalent to ELC 1124.

ELC 1124 Residential Wiring	6	0	9	9
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Prerequisites: DFT 1113

Corequisites:

Study of the fundamentals of residential wiring , including blueprint reading, planning, layout, and installation of wiring in residential applications such as services, switchboards, lighting, fusing, wire sizes, branch circuits, and conduits. Also includes application of National Electric Code Regulations in actual building mockups.

ELC 1125 Commerical and Industrial Wiring	5	0	12	9
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Prerequisites: ELN 1118

Corequisites:

Layout, planning and installation of wiring systems in commerical and industrial complexes, with emphasis on blueprint reading and symbols, the related National Electrical Codes, and the application of the fundamentals of commerical and industrial wiring through practical experience in wiring, conduit preparation, and installation of simple systems.

ELC 1126 Commerical Wiring	3	0	6	5
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Prerequisites: ELN 1118

Corequisites:

Layout, planning, and installation of wiring systems in commerical and industrial complexes, with emphasis on blueprint reading and symbols. ELC 1126 and EC 1127 series is equivalent to ELC 1125.

ELC 1127 Industrial Wiring	2	0	6	4
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Prerequisites: ELC 1126

Corequisites:

National Electrical Codes, and the application of the fundamentals of commerical and industrial wiring through practical experience in wiring, conduit preparation, and installation of simple systems. ELC 1126 and ELC 1127 series is equivalent to ELC 1125.

ELC 1130 Electrical Code	4	0	0	4
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Prerequisites:

Corequisites:

A study of the National Electrical Code. Includes service calculations for residential, commercial, and industrial buildings; branch circuits and feeder calculations; and the rules governing electrical wiring in North Carolina.

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ELECTRONICS

ELN 100 Introduction to Electronics **3 2 0 4**

Prerequisites:

Corequisites:

Introduction to electronics principles and laboratory techniques. The care and proper use of laboratory equipment is emphasized. Techniques of recording and use of laboratory data are taught.

ELN 101 Electronic Instruments and Measurements **1 4 0 3**

Prerequisites: ELC 102

Corequisites:

Study of basic electronic instruments and theories of operation, functions, tolerances, and calibration of both service and laboratory instruments. Laboratory experiences provide opportunities for application of each instrument studied.

ELN 105 Control Devices **4 4 0 6**

Prerequisites: ELC 102

Corequisites:

Study of the electrical characteristics of transistors. Emphasis on basic parameters and applications of each type of control device in the three terminal, two port system.

ELN 110 Fundamentals of Electricity and Electronics **2 4 0 4**

Prerequisites:

Corequisites:

Basics of AC and DC circuits, including circuit analysis and the use of electrical components and measuring devices. Introduction of electronic devices also included.

222 ELN 111 Electronic Components and Systems **2 2 0 3**

Prerequisites:

Corequisites:

Introduces the basics of various electromechanical equipment and electronic devices and systems. Provides a working knowledge of selected electromechanical devices, various electronic components, circuits, and control devices.

ELN 201 Microcomputer Concepts **2 2 0 3**

Prerequisites:

Corequisites:

Introduction to the programming and operation of microcomputers. Topics include computer concepts, applications and use, operations, software, and the elements of basic programming. Emphasis on microcomputer applications.

ELN 202 Microcomputer Hardware **2 2 0 3**

Prerequisites:

Corequisites:

Designed to develop a basic understanding of the microcomputer components and control systems. Emphasis on the use and service of the microcomputer and its applications to energy utilization and conservation.

Class	Lab	Clinical/Credit Shop	Hours
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ELN 205 Application of Transistors

5 6 0 8

Prerequisites: ELN 105

Corequisites:

Practical applications of transistors to basic audio amplifiers, power supplies, and oscillators.

ELN 210 Semiconductor Circuit Analysis

5 4 0 7

Prerequisites: ELN 205

Corequisites:

Circuit analysis of solid state circuits. Includes theory of operation and circuitry associated with transistors, unijunction transistors, silicon controlled rectifiers, triacs, silicon controlled switches, and other solid state devices. Applications of each device studied.

ELN 211P Communication Circuits

4 4 0 6

Prerequisites: ELN 205

Corequisites:

Emphasizes the principles involved in the use of components and devices studied and provides for practice in testing the components and using them in simple relationships in circuits with other units.

ELN 214 Fundamentals of Digital Electronics I 3 0 3 4

Prerequisites: ELN 105, MAT 103

Corequisites:

Study of wave shaping techniques, clipper and clamper circuits, multivibrators, gate circuits, and counter circuits. Includes binary, octal, hexadecimal, binary-coded decimal number systems as well as Boolean algebra and the reduction of circuit components by Boolean algebra and Karnaugh maps.

ELN 215 Fundamentals of Digital Electronics II

3 0 3 4

Prerequisites: ELN 214

Corequisites:

A study of digital circuits and systems and circuits concentrating on the circuits in microcomputer systems.

ELN 220 Electronic Systems

5 4 0 7

Prerequisites:

Corequisites:

Block diagram course: includes investigations of numerous electronic systems, using modules or blocks of circuits already studied which have been arranged to produce complex electronic systems. The systems are explained and reduced to functions and then to block diagrams. AM, FM, and Single Sideband transmitters and receivers; multiplexing; TV transmitters and receivers; pulse-modulated systems; computers; telemetry; navigational systems; and sonar and radar considered.

ELN 231 Introduction to Microprocessors

3 0 3 4

Prerequisites:

Corequisites: ELN 215 or equivalent preparation in digital electronics

Introduces the student to the fundamentals and to the hardware and software of microprocessors and microcomputers as they are used to synthesize digital circuits for instrumentation and control.

Class	Lab	Shop	Clinical/Credit Hours
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ELN 235 Industrial Instrumentation	3	0	3	4
Prerequisites: ELN 205; PHY 104				
Corequisites:				
Introduction to the use of industrial electromechanical and electronic circuits and equipment. Includes methods, techniques, and skills required for installation, service, and operations of industrial control systems. An analysis of sensing devices for detecting changes in pressure, temperature, humidity, sound, light, and electricity; associated circuitry and indicating and recording devices are included.				
ELN 236 Instrumentation and Controls	2	2	0	3
Prerequisites:				
Corequisites:				
Study of the concepts and applications of various devices to control and monitor energy conversion systems. Special emphasis on applications for energy conservation.				
ELN 245 Electronic Design Project	0	4	0	2
Prerequisites: ELN 205				
Corequisites:				
Students are required to design and construct projects approved by the instructor. Includes selection of project and design, construction, and testing of the completed project. Projects may include AM and FM transmitters or receivers, amplifiers, test equipment, control devices, simple counters, lasers, or masers.				
ELN 1103 Introduction to Electronic Devices	5	0	12	9
Prerequisites:				
Corequisites:				
Introduction to vacuum tubes and semiconductors used to control direct and alternating current. Characteristics of diodes, triodes, tetrodes, pentodes, and transistors in power supplies, voltage amplifiers, power amplifiers, and oscillators, and the advantages, disadvantages, and uses of each. ELN 1131, 1133 and 1137 are equal to ELN 1103.				
ELN 1104 Circuit Applications I	4	0	9	7
Prerequisites:				
Corequisites:				
Study of vacuum tubes and semiconductor devices with characteristic curves and manufacturers; data used to determine how and why a circuit configuration behaves in a predetermined manner. The applications and uses of the different configurations and simple design characteristics of each are included.				
ELN 1105 Circuit Applications II	4	0	9	7
Prerequisites:				
Corequisites:				
Study of electronic components and circuits used in industrial applications. Included is a study of sensory devices and detectors, the associated circuitry and indicating devices, relays, switching and monitoring circuits, and other devices applicable to the field of industrial electronics.				
ELN 1106 Maintenance and Analysis of Electronic Systems	5	0	9	8
Prerequisites:				
Corequisites:				
Study in the analysis and maintenance of electronic systems. Included are component troubles and their effects on circuit behavior as related to electronic systems used in private entertainment and to equipment used in business and industrial applications.				

					Clinical/Credit
		Class	Lab	Shop	Hours
ELN 1107 Communications		3	0	0	3
Prerequisites:					
Corequisites:					
Study of the history, operating principles, and methods of communication. Telephones, radio, television, telemetry, and other types of communications used in private and industrial applications are included.					
ELN 1108 Digital Concepts I		3	0	3	4
Prerequisites:					
Corequisites:					
Introduces study of digital computer fundamentals including binary numbers, logic circuits, arithmetic circuits, bistable circuits, registers, and memories. ELN 1132 and 1135 are equal to ELN 1108.					
ELN 1110 Digital Concepts II		3	0	3	4
Prerequisites:					
Corequisites:					
Continues study of digital computer fundamentals including circuits, operations, microprocessing, and programming. ELN 1134 and 1136 are equal to ELN 1110.					
ELN 1111 Electronic Troubleshooting		3	0	0	3
Study of electronic troubleshooting methods and procedures for radio, high fidelity stereo, tape recorders, television, cameras and video tape recorders, CB and mobile radio, electronic organs, and digital circuits. Included is the use of electronic instruments, test equipment, tools and auxiliary items.					
ELN 1116 Industrial Electronics		2	0	3	3
Prerequisites: ELC 1116					
Corequisites:					
Study of basic theory, operating characteristics, and application of vacuum tubes such as diodes, triodes, pentodes, and gaseous control tubes. ELN 1116 and ELN 1117 is equivalent to ELN 1118.					
ELN 1117 Industrial Electronics		1	0	3	2
Prerequisites:					
Corequisites:					
An introduction to amplifiers using triodes, power supplies using diodes, and other basic applications. ELN 1116 and ELN 1117 is equivalent to ELN 1118.					
ELN 1118 Industrial Electronics		3	0	6	5
Prerequisites: ELC 1113					
Corequisites:					
Study of basic theory, operating characteristics, and applicaton of vacuum tubes such as diodes, triodes, pentodes, and gaseous control tubes. Includes an introduction to amplifiers using triodes, power supplies using diodes, and other basic applications.					
ELN 1119 Industrial Electronics		3	0	6	5
Prerequisites: ELN 1118					
Corequisites:					
Study of basic industrial electronic systems such as motor controls, alarm systems, heating systems and controls, magnetic amplifier controls, welding control systems using thyratron tubes, and other basic types of systems commonly found in most industries.					

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				Clinical/Credit
	Class	Lab	Shop	Hours
ELN 1125 Radio Receiver Servicing	5	0	0	5

Prerequisites:

Corequisites:

Study of the principles of radio reception and practices of servicing. Included are block diagram and schematics of radio receivers, servicing techniques of AM and FM receivers by resistive measurements, signal injection and signal tracing, voltage analysis, and methods of locating faulty stages and components.

ELN 1127 Television Receiver Circuits and Servicing	10	0	18	16
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Prerequisites:

Corequisites:

Study of the principles of television reception and practices of servicing. Included are block diagrams and schematics of monochrome and color television receivers, servicing techniques by resistive measurements, voltage and image analysis, and methods of locating and repairing defective components.

ELN 1131 Fundamentals of Electronic Devices	3	0	0	3
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Prerequisites: ELN 1103, 1104, 1105 or equivalent

Corequisites:

An introductory course relating to the basic understanding of solidstate devices and circuits. This course will be taught using the Apple IIe computer with an interactive software package. ELN 1131, 1133 and 1137 are equal to ELN 1103.

ELN 1132 Fundamentals of Digital Circuits	2	0	0	2
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Prerequisites: ELN 1131 or equivalent

Corequisites:

A course designed to teach the fundamentals of Boolean Algebra and basic digital electronic circuits. This course will be taught using the Apple IIe computer with an interactive software package. ELN 1132 and 1135 are equal to ELN 1108.

ELN 1133 Fundamentals of Operational Amplifiers	3	0	0	3
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Prerequisites: ELN 1131 or equivalent

Corequisites:

A course designed to teach the fundamentals of operational amplifier operations and some of the most common applications of these devices. This course will be taught using the Apple IIe computer with an interactive software package. ELN 1131, 1133, and 1137 are equal to ELN 1103.

ELN 1134 Fundamentals of Microprocessors	2	0	0	2
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Prerequisites: ELN 1132

Corequisites:

A course using the Apple IIe computer with an interactive software package that is designed to teach microprocessor architecture, computer arithmetic, and memory organization. Addressing modes and internal register operation are taught through on-screen simulation of a microprocessor's internal registers and their contents. ELN 1134 and 136 are equal to ELN 1110.

ELN 1135 Fundamentals of Pulse and Logic Waveforms	2	0	0	2
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Prerequisites: ELN 1132 or equivalent

Corequisites:

A course using the Apple IIe computer with an interactive software package to teach the fundamentals of pulse-type waveforms including how they are generated and the terminology used to identify them. ELN 1132 and 1135 are equal to ELN 1108.

				Clinical/Credit
	Class	Lab	Shop	Hours
ELN 1136 Fundamentals of Microcomputer Interfacing	2	0	0	2

Prerequisites: ELN 1132 or equivalent

Corequisites:

A course using the Apple IIe computer with an interactive software package covering the basic concepts and circuit configurations most frequently encountered in interfacing microcomputers with devices and systems in the outside world. ELN 1134 and 1136 are equal to ELN 1110.

ELN 1137 Fundamentals of Electronic Devices II	3	0	0	3
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Prerequisites: ELN 1131 or equivalent

Corequisites:

A course using the Apple IIe computer with an interactive software package covering the basic devices and circuits that form the foundation of modern industrial control systems. Emphasis is placed on power-control circuits using semiconductor devices. ELN 1131, 1133 and 1137 are equal to ELN 1103.

ELN 1138 Fundamentals of Regulated Power Supplies	3	0	0	3
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Prerequisites: 1131 or equivalent

Corequisites:

A course using the Apple IIe computer with an interactive software package designed to teach the fundamental characteristics and principles of regulated DC power supplies.

ENGLISH

ENG 091 Reading Development	10	0	0	10
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Prerequisites:

Corequisites:

Individualized course designed to review the reading fundamentals as needed by the student.

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ENG 092 Reading Development	3	0	0	3
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Prerequisites: ENG 091 or equivalent

Corequisite:

Individualized course designed to improve the student's reading achievement through a variety of materials.

ENG 093 Reading Development	3	0	0	3
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Prerequisites: ENG 092 or equivalent

Corequisites:

Individualized course designed to increase reading efficiency, with emphasis on the reading necessary in the individual's curriculum.

ENG 094 Reading Development	3	0	0	3
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Prerequisites: ENG 093 or equivalent

Corequisites:

Individualized course designed to promote the student's reading vocabulary and comprehension.

				Clinical/Credit
	Class	Lab	Shop	Hours
ENG 095 Reading Development	3	0	0	3
Prerequisites: ENG 094 or equivalent score on reading placement test, 10.0-11.9				
Corequisites:				
Individualized course designed for the student with reading skills between the 10.0 and 11.9 grade equivalent levels. The student's reading skills are diagnosed and a program of study is designed according to the diagnosis.				
ENG 099 Grammar I	5	0	0	5
Prerequisites: ENG 092; PLACEMENT SCORE 0-55				
Corequisites:				
Basic instruction in grammar, including parts of speech and some punctuation, in conjunction with simple sentence-combining exercises.				
ENG 100 Grammar II	3	0	0	3
Prerequisites: ENG 092; placement score 52-77 or ENG 099				
Corequisites:				
Designed as a bridge between ENG 099 and composition (Eng 101) to give students additional grammar instruction in conjunction with simple writing tasks.				
ENG 100A Grammar II Lab	0	2	0	1
Prerequisites:				
Corequisites:				
Designed to improve the student's skills in specifically defined areas of basic grammar. For students who score below a specified score on English Placement Test, make "I" or "F" in Basic Grammar previous quarter, or upon request.				
ENG 101 Grammar and Composition I	3	0	0	3
Prerequisites: ENG 092, 100 or equivalent scores on placement tests.				
Corequisites:				
Designed to improve self expression by applying the basic principles of English grammar to written communication.				
ENG 101A Grammar and Composition I Lab	0	2	0	1
Prerequisites: "C" or lower in ENG 100, score below a specified score on English				
Corequisites:				
Individualized course designed to improve the student's skills in specific areas of grammar.				
ENG 101S Grammar	5	0	0	5
Prerequisites: Satisfactory placement test score or ENG 094 and/or ENG 101				
Corequisites:				
Required of all beginning students in the Administrative Office Technology and Medical Office Technology curriculums. Emphasis placed on grammar, punctuation, and spelling. Students should earn a minimum grade of 85 on this course before entering the machine transcription classes.				
ENG 102 Grammar and Composition II	3	0	0	3
Prerequisites: ENG 101				
Corequisites:				
Designed to aid the student in the improvement of self expression in composition. Emphasis is on the sentence, paragraph, and whole composition.				

				Clinical/Credit
	Class	Lab	Shop	Hours
ENG 102A Grammar and Composition II Lab	0	2	0	1

Prerequisites: C or lower in ENG 101 or by student/teacher request

Corequisites:

Individualized course designed to improve the student's writing skills.

ENG 103 Report Writing	3	0	0	3
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Prerequisites: ENG 102 and at least two quarters of curriculum work

Corequisites:

Designed to instruct students in writing for business and industry and tailored to individual curriculums when possible. Emphasis is on memos, various types of short reports, graphic communications, proofreading and editing, and the formal report.

ENG 105 Effective Reading	3	0	0	3
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Prerequisites: Permission of instructor or completion of curriculum reading

Corequisites:

Individualized course for students wishing to improve their reading efficiency. Areas of concentration will be selected, based on each student's needs, from rate, vocabulary, comprehension, and reading-study skills in specific subject areas.

ENG 106 Spelling Techniques	3	0	0	3
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Prerequisites:

Corequisites:

Designed to improve spelling ability. Participants study the relationship of spoken English to spelling, spelling patterns, and commonly misspelled words. They also study vocabulary in their areas of concentration such as medicine, law, or architecture.

ENG 150 Composition I	3	0	0	3
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Prerequisites: Specified scores on English and reading placement tests or ENG 102 and

Corequisites: LIB 150

Essential skills of standard written English and the application of those skills in expository and analytical writing. Essays of varying length on subjects drawn from readings in essays and short fiction.

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ENG 151 Composition II	3	0	0	3
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Prerequisites: ENG 150

Corequisites:

Techniques of library research and the writing of research papers. Subjects for writing assignments are drawn from readings in short fiction and novels.

ENG 152 Composition III	3	0	0	3
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Prerequisites: ENG 150

Corequisites:

Readings in poetry and drama. Papers are written on subjects drawn from readings.

ENG 201 Introduction to Science Fiction	3	0	0	3
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Prerequisites: ENG 151, 152 or permission of instructor

Corequisites:

Theme oriented examination of this enlightening genre. Through readings, discussion, and writing assignments, the course will survey the history of the genre, its growth and development, its major themes, and its role in literature and society.

			Clinical/Credit
	Class	Lab	Shop Hours
ENG 204 Oral Communications	3	0	0

Prerequisites:

Corequisites:

Introduction to interpersonal communication to enable the student to communicate with others effectively. Focuses on the nature of the communication process, including self-perception, group interaction, and language as a symbolic process.

ENG 206 Business Communications	3	0	0	3
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Prerequisites: BUS 102; ENG 102

Corequisites:

Designed to develop skills in writing business communications: letters, memoranda, employment resumes, and applications.

ENG 217 Childrens Literature	3	0	0	3
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Prerequisites:

Corequisites:

Designed to familiarize students with the well-known authors and illustrators of children's literature and to introduce them to the best quality books for young people. Emphasis is on the use of these materials with the children to obtain maximum pleasure and learning.

ENG 250 British Literature I	3	0	0	3
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Prerequisites: ENG 151, 152

Corequisites:

Study of British literature from Beowulf to the Romantic Period.

ENG 251 British Literature II	3	0	0	3
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Prerequisites: ENG 151, 152

Corequisites:

230

Continuation of ENG 250; study of British literature from the Romantic Period to the present.

ENG 260 American Literature I	3	0	0	3
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Prerequisites: ENG 151, 152

Corequisites:

Major works of American literature from the colonial period through World War I.

ENG 261 American Literature II	3	0	0	3
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Prerequisites: ENG 151, 152

Corequisites:

Continuation of ENG 260; major works of American literature from World War I to the present.

ENG 1101 Reading Improvement	2	0	0	2
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Prerequisites: ENG 1000 or equivalent

Corequisites:

Individualized course designed to improve student's reading skills through use of various materials.

				Clinical/Credit
	Class	Lab	Shop	Hours
ENG 1102 Communication Skills	3	0	0	3

Prerequisites: ENG 1101 or equivalent

Corequisites:

Designed to improve students' communication skills in specific work situations. Learning experiences include completing job applications, job interviews, letter writing, telephone communications, technical vocabulary, and customer communications.

FORESTRY

FOR 208 Forest Surveying	2	0	3	3
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Prerequisites:

Corequisites:

Relocation of old corners and lines and the legal aspects of land surveys. Forest road layout.

GERIATRIC

GCA 1001 Geriatric Care	8	8	12	16
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Prerequisites:

Corequisites:

Prepares graduates to provide basic health and personal care for older persons. The curriculum emphasizes the multiple processes of aging (i.e. physical, social, and psychological), communication, nutrition, therapeutic activities (i.e. reality orientation, arts and crafts, music therapy, life review therapy, and remotivation therapy), accident and fire safety, death and dying, drug usage, human sexuality, resources and services for the aged, and employment skills. Clinical experiences may be obtained in skilled nursing and intermediate care facilities, family care homes and homes for the aged and disabled, adult day care centers, and other long-term care facilities.

231

GEOGRAPHY

GEO 150 Introduction to Geography	5	0	0	5
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Prerequisites: Specified score on reading placement test or ENG 094

Corequisites:

Major physical and cultural elements of the environment and their influence on human activity.

HEALTH

HEA 110 First Aid and Medical Terminology	2	2	0	3
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Prerequisites:

Corequisites:

Provides students with the basic skills necessary to provide first aid in common emergencies. Instruction also includes an introduction to anatomy and basic medical terminology used in legal matters.

				Clinical	Credit
	Class	Lab	Shop	Hours	
HEA 111 Cardiopulmonary Resuscitation	1	0	0	1	

Prerequisites:

Corequisites:

Designed to qualify students to receive basic rescuer certification. Provides skills in one and two rescuer CPR, infant CPR, and conscious and unconscious airway obstruction in the adult and child.

HEA 112 First Aid	1	0	0	1
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Prerequisites:

Corequisites:

A multimedia course which uses demonstration films, a programmed workbook and practice sessions resulting in Red Cross First Aid Certification.

HEA 150 Personal and Community Health	3	0	0	3
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Prerequisites:

Corequisites:

Investigation of mental, social, and physical health problems related to man's internal and external environment in technological and leisure oriented societies. The objective is efficient and effective performance in daily living through maintenance of optimal personal and community health.

HISTORY

HIS 150 American History I	5	0	0	5
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Prerequisites: Specified score on reading placement test or ENG 094

Corequisites:

History of the United States from its beginning to the end of Reconstruction.

HIS 151 American History II	5	0	0	5
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Prerequisites: Specified score on reading placement test or ENG 094

Corequisites:

History of the United States from Reconstruction to the present.

232

HIS 160 World History to 1500	5	0	0	5
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Prerequisites: Specified score on reading placement test or ENG 094

Corequisites:

Development of civilization from prehistory to the Reformation.

HIS 161 World History Since 1500	5	0	0	5
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Prerequisites: Specified score on reading placement test or ENG 094

Corequisites:

European civilization from the Renaissance to the present.

HUMAN SERVICES

HSA 100 Basic Health Science	3	0	0	3
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Prerequisites:

Corequisites:

Introduction to the normal structure and functioning of the human body, briefly covering all systems. The normal body is studied as the basis for understanding variations from normal and the need to maintain homeostasis. Included within each system is pertinent

Class	Lab	Shop	Clinical/Credit Hours
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information concerning hygiene, nutritional requirements, basic first aid, and medical terminology.

HSA 102 Orientation Lab I

0 2 0 1

Prerequisites:

Corequisites:

Designed to promote professional, program, and personal identification and development. Emphasizing verbal and nonverbal interaction in interpersonal communication. Strongly recommended for all first-year Human Services Technology students.

HSA 111 Introduction to Human Services 3 0 3 4

Prerequisites:

Corequisites:

Introduction to the history of human services and related theories and systems. Agencies, institutions, and programs which help meet human services needs are studied in broad context of social and political systems. Guest lecturers, representative of human services occupations, and field trips to agencies and institutions delivering human services offer a familiarization with the components of the delivery system.

HSA 112 Group Processes I 1 0 3 2

Prerequisites: Permission by Instructor

Corequisites:

Introduction to interpersonal concepts and problems of communication in interpersonal transactions. Designed to allow students to become more aware of themselves and their feelings about themselves and other people with whom they come in contact. To facilitate this self-awareness and personal growth, students work in small groups, learning through analyses of their own experiences including feelings, reactions, perceptions and behavior.

HSA 112P Practicum I 1 0 6 3

Prerequisites: Permission of instructor

Corequisites:

Students spend six hours per week in clinical laboratory experiences under the supervision of a qualified instructor. Emphasis on the application of concepts and principles from related course content.

233

HSA 113 Group Processes II 1 0 3 2

Prerequisites: HSA 112 or permission of instructor

Corequisites:

Continued study of interpersonal relationships in small group interactions. Students work in small groups during the quarter, learning through analyses of their own experiences, including feelings, reactions, perceptions, and behavior, using the framework of transactional analysis.

HSA 113P Practicum II 1 0 6 3

Prerequisites: Permission of instructor

Corequisites:

Continuation of Practicum I.

HSA 114 Interviewing and Counseling 3 2 0 4

Prerequisites: ENG 101 and ENG 102 and at least two quarters of curriculum work

Corequisites: ENG 103

Study of purpose, structure, focus, and techniques employed in effective interviewing. Laboratory experiences providing opportunities for observation, practice, recording, and summarizing personal histories under faculty supervision. Importance of interview

as client's initial encounter with system is stressed; interviewing to meet need of client rather than of system.

HSA 115 Field Experience **2 0 30 12**

Prerequisites: Permission by instructor

Corequisites:

Work in a human services agency, institution, or program under the supervision of college personnel. Students have an opportunity to apply and practice what has been learned in the program while learning from the professionals in the field.

HSA 116 Group Processes III **1 0 3 2**

Prerequisites: HSA 112 or HSA 113 or permission by instructor

Corequisites:

Final formal group experience. Attention given to the development of the students' abilities to communicate with others as well as to facilitate communication between others.

HSA 131, 132, 133 Readings in Human Services **0 2 0 1**

Prerequisites:

Corequisites:

Designed for students who wish to specialize or expand their knowledge in certain areas of human services. Under the supervision of human services faculty members, students study materials relative to concepts in human services and write critical analyses. Time for independent study allotted, and individual conferences with the supervising instructor arranged.

HSA 201 Mental Health Care **4 0 3 5**

Prerequisites: HSA 100

Corequisites:

Orientation to the policies, procedures, and practices commonly accepted in mental health institutions. An introduction to basic patient care principles and techniques in meeting the needs of patients during observation, ambulation, and mildly mentally ill stages. Lab experiences present practice in basic patient care under the direction of a faculty member.

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HSA 202 Orientation Lab II **0 2 0 1**

Prerequisites:

Corequisites:

Continuation lab of HSA 102 for Human Services Technology students to enhance professional and personal development. Emphasis placed on verbal and nonverbal techniques to facilitate interpersonal communication. Strongly recommended for second-year Human Services Technology students.

HSA 208 Change Agentry Lab I **0 0 3 1**

Prerequisites: HSA 112 or 113 or 116 or permission by instructor

Corequisites:

A four-day human relations training lab in a retreat setting off campus. Lab staffed by qualified trainers. Students are offered practice in the interpersonal and group skills they have learned in courses in group processes.

HSA 209 Treatment Modalities **4 2 0 5**

Prerequisites: PSY 211

Corequisites:

Analysis and application of the major approaches to psychotherapy and counseling, involving theory, characteristics, and techniques.

				Clinical/Credit
	Class	Lab	Shop	Hours
HSA 210 Change Agency Lab II	0	0	3	1

Prerequisites: HSA 112 OR HSA 113 or HSA 116 or permission of the instructor
Corequisites:

A four-day human relations training lab which occurs in a retreat setting off-campus. The lab is staffed by qualified group leaders and the students are afforded an experience to practice the interpersonal and group skills they have learned in HSA 112, 113, or HSA 116.

HSA 210P Practicum III	1	0	6	3
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Prerequisites: Premission by instructor
Corequisites:

Students placed six hours per week in an agency to obtain job experience related to course work. Supervised by qualified agency personnel.

HSA 215 Human Services Seminar	3	0	0	3
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Prerequisites: Permission by instructor
Corequisites:

In-depth review of current issues and trends within the field of mental health. Students expected to demonstrate the knowledge and experience gained in previous study and training in group conferences and oral reports.

HSA 220 Activities in Human Services	2	2	0	3
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Prerequisites:
Corequisites:

Overview of the types of activities (occupational, recreational, play, music, drama, nonverbal) utilized as therapeutic techniques with particular emphasis on the purpose of each: ways of creating and holding interest in the activity; and the role of the Human Services Associate in assisting patients to participate.

HSA 225 Crisis Intervention	4	0	0	4
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Prerequisites:
Corequisites:

Designed to introduce students to basic theories and principles of crisis intervention from a historical as well as practical orientation. Provides students with necessary skills in crisis intervention since practical application is correlated with theory. Allow students to prepare themselves emotionally and psychologically to handle emergency crisis situations.

HSA 227 Therapeutic Communities	1	2	0	2
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Prerequisites:
Corequisites:

This course is designed to understand the process behind establishing a therapeutic community and to participate in the creation of a therapeutic community. Target populations will be identified, i.e. homeless, family violence, drug treatment, mentally ill adolescents and mentally retarded; characteristics identified and management techniques will be developed.

HSA 231, 232, 233 Research in Human Services	0	2	0	1
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Prerequisites:
Corequisites:

Designed for students who wish to specialize or expand their knowledge in certain areas of human services. Under the supervision of human services faculty members,

students investigate and study materials and data from primary and secondary sources relative to concepts in human services and prepare reports in the style appropriate to the discipline.

INSURANCE

INS 215 Life, Accident and Health Insurance 5 0 0 5

Prerequisites:

Corequisites:

Study of risk and function of life and health insurers; interpretation of laws relating to life, accident, and health insurance. Includes classifications, life insurance contract provisions, general agent responsibilities, types of health insurance; and social insurance.

INS 216 Property and Casualty Insurance 5 0 0 5

Prerequisites:

Corequisites:

Study of risk and function of property and casualty insurers. Interpretation of laws relating to property and casualty, property exposures including fire, liability exposures, personal and commercial liability protection, and individual and group health coverage.

INDUSTRIAL SCIENCE

ISC 102 Industrial Safety 3 0 0 3

Prerequisites:

Corequisites:

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Deals with the many elements of an industry-wide safety program. Provides an in-depth treatment of job safety analysis, plant inspection, plant arrangement, housekeeping, and the maintenance and handling of materials. Special emphasis given to compliance with the new Occupational Safety and Health Act, and to paperwork procedures and processes.

**ISC 110, 120, 130 Readings in
Industrial Management** 1 0 0 1

Prerequisites:

Corequisites:

Designed for students who wish to specialize or expand their knowledge in industrial management under the supervision of the Industrial Management faculty. Structured to enable study of materials related to concepts in industrial management.

ISC 201 Industrial Organization and Management 3 0 0 3

Prerequisites:

Prerequisites:

Organizational structure for industrial management including operational and financial activities. Includes accounting; budgeting; credit and industrial risks; forecasting and markets; selection and layout of physical facilities; and selection, training, and supervision of personnel as found in typical industrial organizations.

				Clinical/Credit
	Class	Lab	Shop	Hours
ISC 202 Quality Control	3	0	0	3

Prerequisites: MAT 101

Corequisites:

Provides an overview of quality control activity and its scope throughout the entire business system of a company. Among the topics discussed are the elements of quality control work, the organization required to get the work accomplished, methods of measuring the effectiveness of the function, and the integration of the various quality-related activities of the organization into a quality system.

ISC 203 Motion Economy	3	0	0	3
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Prerequisites:

Corequisites:

Provides a systematic, practical, and logical treatment of motion and time study as utilized in today's business and industrial enterprises. Covers direct and indirect work and office activities and looks at the broad range of work measurement techniques. Recently developed concepts and techniques are evaluated.

ISC 204 Value Analysis	3	0	0	3
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Prerequisites:

Corequisites:

Common sense approach to cost reduction. Provides students with an opportunity to review in depth the concepts and techniques of value analysis and engineering. Emphasis is placed upon identifying and removing unnecessary production costs.

ISC 205 Maintenance Management	3	0	0	3
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Prerequisites:

Corequisites:

The course includes administration, decision making, setup, and inspection of various programs such as preventive maintenance, repair parts, inventory control, and organization and functions of maintenance. Various aspects of management, engineering, resources analysis, and maintenance facilities are covered.

ISC 209 Plant Layout	4	0	0	4
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Prerequisites:

Corequisites:

Provides a practical study of factory planning with emphasis on the most efficient arrangement of work areas to achieve lower manufacturing costs. Sample layouts for small and medium size industries and the effective use of personnel, money, machinery, and materials are included.

ISC 213 Production Planning	4	0	0	4
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Prerequisites:

Corequisites:

Introduces the production function of the business or industry in its daily manufacturing process. Functions reviewed are forecasting, product planning and control, scheduling, dispatching, and routing. Case histories are discussed in the classroom and courses of corrective action are developed. Actual layouts are utilized for planning and control.

ISC 231 Manufacturing Processes	5	0	0	5
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Prerequisites:

Corequisites:

Provides a basic understanding of industrial materials, machines, and processes utilized in today's manufacturing and assembling plants. Reviews the rapid development of new materials, mechanization and automation, and the complex process of manufacturing.

			Clinical/Credit
	Class	Lab	Shop Hours
ISC 232 Labor Relations	4	0	0

Prerequisites:

Corequisites:

Covers the history of the labor movement in the United States with its structural and legal framework, and examines the negotiation, administration, and major contents of the labor contract itself. Special studies of arbitration cases which illustrate the theories in realistic terms are provided.

ISC 1101 Industrial Safety	3	0	0	3
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Prerequisites:

Corequisites:

A study of the development of industrial safety: accident occurrence and prevention; analysis of accident causes and costs, basic factors of accident control, safety education and training, accident reporting and records, employer and employee responsibility, safety organizations, first aid, mechanical safeguards, personal protective equipment use, materials handling, fire prevention and fire protection; safety codes, and accident statistics.

ISC 1105 Statistical Process Control Principles	3	0	0	3
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Prerequisites:

Corequisites:

Introduces the principles of quality management along with the application of statistical process control procedures in a manufacturing environment.

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LEGAL EDUCATION

LEC 203 Legal Research II	1	2	0	2
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Prerequisites:

Corequisites:

Continuation of CJC 102 Legal Research I.

LEC 204 Advanced Business Law	3	0	0	3
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Prerequisites: BUS 167

Corequisites:

Analysis of basic concepts of business corporations, partnerships and joint ventures, and sole proprietorships with emphasis on drafting articles of incorporation, by-laws, minutes, resolutions, stock certificates, and partnerships and joint venture agreements. Also deals with problems in business finance and acquisitions, and in related areas of commercial law, stock transfer and purchase agreements, and employment contracts. Consideration of general tax and the role of the lawyer and paralegal.

LEC 207 Law Office Management	3	0	0	3
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Prerequisites:

Corequisites:

Includes the study of the organization of a law office; office forms; legal forms, filing equipment and systems; accounting systems for a lawyer's time, fees, and billing; client relations; and office procedure. Also familiarizes students with the operation of office machines and equipment.

Class	Lab	Clinical/Credit Shop Hours
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LEC 210 Real Property and Title Abstracting I 2 2 0 3

Prerequisites:

Corequisites:

Examination of the applicable statutory and common law principles including the form and adequate execution of documents; the functions of judgments and estates in the determination of whether a title to real estate is marketable; the study and function of various documents, indices and files on public records in various county offices. Forms of abstracting title information from public records and summaries thereof included. Various typical problems and errors which may render a title unmarketable included.

LEC 211 Real Property and Title Abstracting II 2 2 0 3

Prerequisites:

Corequisites:

Continuation of LEC 210.

LEC 212 Real Estate Transactions 2 2 0 3

Prerequisites:

Corequisites:

Includes the study of the preparation of simple contracts for sale of real estate, ordering title search, examining title searches and preparing simple titles, ordering title insurance, preparation of settlement sheet and holding closing, informing purchasers of needed documents and funds, disbursement of fund and recording documents, and preparation of certificate of title for lawyer's signature. Also covers the draftings of mortgages documents, and deeds of trust, the closing procedures of these land financing transactions, and foreclosure upon default.

LEC 218 Collection and Bankruptcy Procedure 3 0 0 3

Prerequisites:

Corequisites:

Study covers both voluntary and involuntary bankruptcy including the wage earner plan. Collection procedures including drafting collection letters, drafting and filing complaints, default judgments, executions, supplemental proceedings, liens and judicial sales, and receiverships.

LEC 220 Family Law 3 0 0 3

Prerequisites:

Corequisites:

Study of the rights and obligations of the marriage contract; divorce; annulment; separation by court order and by consent; defenses to divorce; child custody; adoption, name change, and bastardy proceedings; alimony, child support, Aid to Dependent Children, and welfare; and North Carolina juvenile law.

LEC 224 Torts 3 0 0 3

Prerequisites:

Corequisites:

Study of the principles behind personal injury settlements and litigation with an emphasis on North Carolina law.

LEC 229 Taxes 3 0 0 3

Prerequisites:

Corequisites:

Application of federal and state taxes to various businesses and business conditions. Study of the following taxes: income, payroll, intangible, capital gains, sales and use, excise, and inheritance.

				Clinical/Credit
	Class	Lab	Shop	Hours
LEC 232 Estate Administration	3	0	0	3

Prerequisites:

Corequisites:

Students instructed in the drawing of a will, making arrangements with the probate office for probate of will or issuance of letter of administration, preparing simple transfer of inheritance tax forms, marshaling of assets, payment of debts of estate, preparation of interim and final accounting, and preparation of refunding bonds and releases.

LEC 240 Civil Litigation	3	0	0	3
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Prerequisites:

Corequisites:

Teaches the paralegal how a lawyer prepares briefs prior to entering court proceedings. Students taught how to review a file; prepare subpoenas ready for the lawyer's signature; prepare exhibits for court; file pleadings; and index interrogations, depositions, admissions, and pleadings. Prepares students to interview witnesses and record statements in writing and on tape.

LEC 250 Paralegal Internship	1	0	9	4
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Prerequisites: Completion of majority of course work and permission of the instructor

Corequisites:

Students spend nine hours per week in an approved law office under the supervision of an attorney. Emphasis is placed on exposing students to a variety of experiences encountered in the legal profession. The internship is an add-on elective.

LIBRARY SCIENCE

LIB 150 Library Research Skills	2	0	0	2
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Prerequisites:

Corequisites:

240

Library and its resources, usually taken concurrently with ENG 150.

MASONRY

MAS 1101 Bricklaying I	5	0	15	10
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Prerequisites:

Corequisites:

Covers the history of the bricklaying industry, and clay and shell brick, mortar, laying foundations, laying bricks in a line, bonding, and tools and their uses. Laboratory work provides training in the basic manipulative skills.

MAS 1102 Bricklaying II	5	0	15	10
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Prerequisites: MAS 1101

Corequisites:

Designed to give students practice in selecting the proper mortars, layout, and construction of various building elements such as foundations, walls, chimneys, arches, and cavity walls. Proper use of bonds, expansion strips, wall ties, and caulking methods stressed.

				Clinical/Credit
	Class	Lab	Shop	Hours
MAS 1103 Bricklaying III	5	0	15	10

Prerequisites:

Corequisites:

Layout and erection of reinforced grouted brick masonry lintels, fireplaces, glazed tile, panels, decorative stone, granite, marble, adhesive terra cotta, and modular masonry construction theory and techniques.

MAS 1104 Bricklaying IV	4	0	15	9
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Prerequisites:

Corequisites:

Continued application of techniques acquired in MAS 1103 with emphasis on further refining the skills of a mason.

MAS 1113 Masonry Estimating I	0	0	3	1
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Prerequisites: MAS 1103

Corequisites:

Figuring the quantities of materials needed and costs of building various components and structures. Practical course in quality "take off" from prints of the more common types of jobs for bricklayers and masons.

MAS 1114 Masonry Estimating II	0	0	3	1
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Prerequisites:

Corequisites:

Continuation of MAS 1113 with some emphasis being given to quantity "take off" from prints of the more complicated kind.

MATHEMATICS

MAT 099 Developmental Mathematics	5	0	0	5
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Prerequisites:

Corequisites:

Course designed for students whose background mathematics is limited. Does not carry credit toward an associate degree.

MAT 100 Fundamentals of Mathematics	5	0	0	5
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Prerequisite: MAT 100R

Corequisites:

Fractions, decimals, percents, ratios, proportions, and an introduction to algebra.

MAT 100R Computational Skills	5	0	0	5
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Prerequisites: MAT 099

Corequisites:

Fractions, decimals, and percents.

MAT 101 Algebra I	5	0	0	5
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Prerequisites: MAT 100

Corequisites:

Basic algebraic operations, linear equations, factoring, algebraic fractions, graphing, systems of linear equations, exponents, and radicals.

				Clinical/Credit
	Class	Lab	Shop	Hours
MAT 102 Trigonometry	5	0	0	5
Prerequisites: MAT 101				
Corequisites:				
The trigonometric functions, right and oblique triangles, radian measure, graphs of trigonometric functions, trigonometric identities, trigonometric equations, and inverse trigonometric functions.				
MAT 103 Algebra II	5	0	0	5
Prerequisites: MAT 101				
Corequisites:				
Exponentials, roots, quadratic equations, inequalities of one variable, first degree relations and functions, second degree relations and functions, systems of equations, and logarithmic functions.				
MAT 104 Calculus I	3	0	0	3
Prerequisites: MAT 103				
Corequisites:				
The derivative with applications and integration with applications.				
MAT 110 Business Mathematics	5	0	0	5
Prerequisites: Satisfactory placement test score or MAT 110R				
Corequisites:				
Stresses the fundamental operations and their application to business problems. Topics covered include banking, price mark-up, invoices, simple interest, discounts, charges for credit, and pertinent uses of mathematics in the field of business.				
MAT 111 Computer Mathematics	.5	0	0	5
Prerequisites:				
Corequisites:				
Topics include number systems and arithmetic operations, sets, logic, Boolean algebra, statistics, scientific notation, and matrix algebra.				
242				
MAT 114 Medical Dosage Calculations	2	0	0	2
Prerequisites: MAT 100				
Corequisites:				
Develops the skills necessary to correctly compute medication dosages in the metric, apothecary, and household systems of measurement.				
MAT 145 Intermediate Algebra	4	0	0	4
Prerequisites: MAT 101 or appropriate score on MPT				
Corequisites:				
Basic algebraic operations, linear equations and inequalities, factoring, algebraic fractions, graphing, systems of linear equations, exponents, radicals, and application problems.				
MAT 150 College Algebra	5	0	0	5
Prerequisites: MAT 103; and ENG 094 or its equivalent				
Corequisites:				
Course covers algebraic operations, exponents, radicals, linear equations, quadratic equations, absolute value, inequalities, graphing, variations, systems of equations, systems of inequalities, polynomial functions, and the binomial theorem.				

				Clinical/Credit
	Class	Lab	Shop	Hours
MAT 180 Statistical Analysis	5	0	0	5
Prerequisites: MAT 150				
Corequisites:				
Sampling of probability distributions, measures of central tendency and dispersion, hypothesis testing, Chi-square, and regression.				
MAT 201 Calculus II	3	0	0	3
Prerequisites: MAT 102, 104				
Corequisites:				
Continues MAT 104. Covers more advanced concepts of differentiation and integration. Introduces solutions of differential equations.				
MAT 250 Basic Concepts of Mathematics I	5	0	0	5
Prerequisites: MAT 145 or appropriate score on MPT and/or APT				
Corequisites:				
The system of real numbers and subsystems and their properties from an algebraic viewpoint. Statistics and number theory are also introduced. Credit for this course may not be counted toward a major or minor in mathematics or computer science for the B.A. or B.S. degree.				
MAT 251 Basic Concepts of Mathematics II	3	0	0	3
Prerequisites: MAT 250				
Corequisites:				
A continuation of MAT 250. Upon completion of the course, the student should be familiar with the methods and language of geometry, be able to reason inductively from a series of examples and be aware of some relationships of geometry to the real world. Designed for elementary education majors.				
MAT 251 Basic Concepts of Mathematics II	3	0	0	3
Prerequisites: MAT 250				
Corequisites:				
Basic definitions and properties of plane and solid geometric figures, perimeter, area, and transformations of plane figures, volumes of solid figures, the metric system, and coordinate geometry.				
MAT 1102 Algebra	5	0	0	5
Prerequisites: MAT 100				
Corequisites:				
Basic algebraic operations, linear equations, exponents, graphing, systems of equations, and radicals.				
MAT 1103 Basic Geometry and Trigonometry	5	0	0	5
Prerequisites: MAT 100				
Corequisites:				
Basic definitions and properties of plane and solid geometric figures, areas of plane figures, volumes of solids, trigonometric functions of any angle, and solution of right triangles.				
MAT 1111 Building Trade Mathematics: Masonry	3	0	0	3
Prerequisites:				
Corequisites:				
Practical problems dealing with whole numbers, fractions, decimals, percents, and square roots as it relates to masonry materials.				

				Clinical/Credit
	Class	Lab	Shop	Hours
MAT 1112 Building Trade Mathematics	3	0	0	3
Prerequisites: MAT 100				
Corequisites:				
Practical problems dealing with volumes, weights, ratios, and mensuration.				
MAT 1113 Building Trade Mathematics: Masonry	3	0	0	3
Prerequisites: MAT 1111				
Corequisites:				
Practical problems dealing with linear, square, and volume mensuration as related to masonry.				
MAT 1123 Machinist Mathematics	3	0	0	3
Prerequisites: MAT 1103				
Corequisites:				
Introduces gear ratio, lead screw, and indexing problems with emphasis on application to the machine shop. Practical applications and problems furnish the trainee with experience in geometric propositions and trigonometric relations to shop problems. Concludes with an introduction to compound angle problems.				

MECHANICS

MEC 101 Machine Processes	3	0	3	4
Prerequisites:				
Corequisites:				
Introductory course designed to acquaint students with basic hand tools, safety procedures, and machine processes of modern industry. Includes a study of measuring instruments, characteristics of metals, and cutting tools. Students become familiar with the lathe family of machine tools by performing selected operations such as turning, facing, threading, drilling, boring, and reaming.				
MEC 102 Machine Processes	3	0	3	4
Prerequisites: MEC 101				
Corequisites:				
Advanced operations on lathe, drilling, boring, and reaming machines. Milling machine theory and practice. Study of the types of milling machines, cutters, jig and fixture devices, and the accessories used in a modern industrial plant. Safety in the operational shop is stressed.				
MEC 104 Applied Mechanics	5	0	0	5
Prerequisites: MAT 103 and PHY 104				
Corequisites:				
This course covers the concepts and principles of statics, parallel, concurrent and nonconcurrent force systems in coplanar and noncoplanar situations, concepts of centroids and center of gravity, and moments of inertia.				
MEC 112 Machine Shop Processes	1	0	3	2
Prerequisites:				
Corequisites:				
Acquaints students with the procedures of layout work and the correct use of hand and machine tools. Experiences in the fundamentals of drill press and lathe operations, hand grinding of drill bits and lathe tools, and setup work applied to the trade.				

Class	Lab	Shop	Clinical/Credit Hours
1	0	6	3

MEC 114 Shop Practice
Prerequisites: MEC 102

Corequisites:

Designed to acquaint students with basic fundamentals of installation, maintenance, and repair of machine tools. Machine maintenance and accuracy emphasized. Slip and press fits produced to include bearing assembly. Miscellaneous hydraulic, pneumatic, and lubrication devices studied. Machine location, leveling, and fastening discussed. Integration of machining and fabrication developed by related shop projects. Implementation and operation of preventive maintenance systems studied.

MEC 201 Manufacturing Processes I
2 2 0 3
Prerequisites: MEC 102

Corequisites:

The newer concepts of work handling, automatic machining processes, chipless production, new techniques in metal forming, analysis of high energy forming ultrasonic machining, electrolytic metal removal, chemical milling, numerical control systems, and production methods in manufacturing are covered.

MEC 202 Manufacturing Processes II
2 2 0 3
Prerequisites: MEC 201

Corequisites:

The newer concepts of work handling and automatic machining processes are emphasized. Concentrated study of production methods in manufacturing is included.

MEC 205 Strength of Materials
3 2 0 4
Prerequisites: MEC 104

Corequisites:

This course includes a study of principles and analyses of stresses which occur within machine and structure elements subjected to various types of loads such as static, impact, varying, and dynamic. An analysis of these stresses is made as applied to riveted and welded joints, beams, columns, and other components.

MEC 210 Physical Metallurgy
3 0 3 4

245

Prerequisites:
Corequisites:

This introductory course in metallurgy includes a basic study of the properties of metals and alloys, analysis of the structure of metals and alloys, atomic structure, nuclear structure, and nuclear reactions; and solid (crystalline) structures, methods of designating crystal planes, liquid and vapor phases, phase diagrams, and alloy systems.

MEC 222 Rigging and Material Handling
2 0 3 3
Prerequisites:
Corequisites:

Transporting, conveying, transferring, self-loading, and bulk-handling equipment are introduced. Use of wire rope, slings, chains, scaffolds, and ladders are investigated. Proper storage of materials is covered.

MEC 235 Hydraulics and Pneumatics
3 0 3 4
Prerequisites:
Corequisites:

Basic theories of hydraulic and pneumatic systems. Combinations of systems in various circuits. Basic designs and functions of circuits and motors, controls, electrohydraulic servomechanisms, plumbing, filtration, accumulators, and reservoirs.

				Clinical/Credit Hours	
		Class	Lab	Shop	
MEC 237 Control Systems		3	2	0	4
Prerequisites: PHY 104					
Corequisites:					
This course covers the basic principles of electrical, electronic, and pneumatic control systems as related to industrial applications; the basic design and functions of circuits, motors, transducers, and servomechanisms; and a review of the National Electrical Code.					
MEC 240 Introduction to Robotics		3	2	0	4
Prerequisites: MEC 235, 237 and 270					
Corequisites:					
This is a fundamental course in application, programming, and maintenance of robot devices.					
MEC 250 MET Seminar		1	0	0	1
Prerequisites: Completion of a minimum of four quarters of MET curriculum study.					
Corequisites:					
Provides an opportunity for students, in their final year of MET study, to meet as a group for the discussion of topics such as job opportunities, job interviews, continuing education options, and recent technological developments in the area of manufacturing engineering.					
MEC 270 Introduction to CNC Machining		1	2	0	2
Prerequisites: MEC 102, or permission of instructor					
Corequisites:					
An introduction to the set-up, operation, and programming of Numerical Control and Computer Numerical Control machine tools. Concepts, capabilities, and applications of CNC machining are to be explored. Equipment descriptions, operator controls, data input, program preparation and storage will be studied. Students will gain skills in manual parts programming, set-up and operation of CNC machines. Operator safety and machine protection will be stressed.					
MEC 272 Programming of CNC Machine Tool Equipment		2	2	0	3
Prerequisites: MEC 270					
Corequisites:					
An introduction to the programming of CNC equipment. Looping, macro sub-routines, drill cycle, spot facing cycle, deep hole drilling cycle, boring cycle, multihole row drilling cycle, inch dimension system, metric dimension system, facing cycle pocket milling cycle, internal hole milling cycle, and cutter diameter compensation will be areas of study. Safety and machine protections will be stressed at all times.					
MEC 298 Maintenance Problems I		2	0	3	3
Prerequisites:					
Corequisites:					
Broadens the experiences of students in the areas of mechanics. Problems involving various types of equipment given to demonstrate the check list method of maintenance and preventive maintenance. The use of precision measuring tools and checking for accuracy, squareness, and correct center line distances stressed for prestart inspection. Study in everyday manufacturing problems and solutions. Includes a major part of emphasis on live projects. Projects include selection by the student of the proper feeds, speeds, linkage, and controls of power transmissions, as well as bearings and gears, installation, and repair. Special emphasis on interpretation of catalog information and reference material.					

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	Class	Lab	Clinical/Shop	Credit Hours
MEC 299 Maintenance Problems II	2	0	3	3

Prerequisites:

Corequisites:

Continuation and in-depth study of MEC 298.

MEC 1101 Machine Shop Theory and Practice	3	0	12	7
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Prerequisites:

Corequisites:

Introduction to the machinist trade and the potential it holds for craftsman. Deals primarily with the identification, care, and use of basic hand tools and precision measuring instruments. Elementary layout procedures of lathe, drill press, grinding (off-hand), and milling machines introduced both in theory and practice.

MEC 1102 Machine Shop Theory and Practice	3	0	12	7
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Prerequisites: MEC 1101

Corequisites:

Advanced operations in layout tools and procedures, power sawing, drill press, surface grinder, and milling machine shaper. Students introduced to the basic operations on the cylindrical grinder. Projects selected encompassing all the operations, tools, and procedures used thus far and those to be stressed throughout the course.

MEC 1103 Machine Shop Theory and Practice	3	0	12	7
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Prerequisites: MEC 1102

Corequisites:

Advanced work on the engine lathe; turning, boring and threading machines; grinder; milling machines; and shapers. Introduction to basic indexing and terminology, with additional processes on calculating, cutting, and measuring of spur, helical, and worm gears and wheels. Trainees use precision tools and measuring instruments such as vernier height gauges, protractors, and comparators. Basic exercises given on the turret lathe and on the tool and cutter grinder.

MEC 1104 Machine Shop Theory and Practice	3	0	12	7
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Prerequisites: MEC 1103

Corequisites:

Development of class projects using previously learned procedures in planning, blueprint reading, machine operations, and final assembly inspection. Additional process on the turret lathe, tool and cutter grinder, cylindrical and surface grinder, and advanced milling machine operations. Special procedures and operations, processes, and equipment; observing safety procedures faithfully; and establishing good work habits and attitudes acceptable to the industry are included.

MEC 1105 Machine Shop Theory and Practice	3	0	15	8
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Prerequisites: MEC 1104

Corequisites:

Stresses the development of skills and understanding of machine precision parts. Advanced machine processes are taught using the standard machine tools as well as specialized or production equipment as applicable. Methods and procedures of checking and inspecting precision parts are covered. Good housekeeping and safe working habits stressed at all times.

MEC 1106 Machine Shop Theory and Practice	3	0	12	7
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Prerequisites: MEC 1105

Corequisites:

Emphasis is placed on production methods and on machines, including setup and operation for mass production. Instruction given on the turret lathe, milling machines, cylindrical grinders, and other production machines. Considerable attention is also given

to specialized equipment, such as N/C machinery, electrical discharge machines, gear hob or shaper, or others as available.

MEC 1107 Jigs and Fixtures

2 0 6 4

Prerequisites:

Corequisites:

Develops understanding of principles and uses of jigs and fixtures. Instructions in designing and drawing simple jigs and fixtures, as well as practice in their manufacture for use on course projects. Development of confidence and pride in producing high quality parts with the use of jigs and fixtures.

MEC 1109 Tool and Cutter Grinding

2 0 6 4

Prerequisites:

Corequisites:

This course is designed to familiarize the student with various tool grinding machines and the procedure for grinding cutting tools used in the metalworking trades. Grinding wheel selection, stock removal, clearance angles and feeds and speeds will be studied.

MEC 1112 Machine Shop Processes

1 0 3 2

Prerequisites:

Corequisites:

Acquaints students with the procedures of layout work and the correct use of hand and machine tools. Experiences in the fundamentals of drill press and lathe operations, hand grinding of drill bits and lathe tools, and setup work applied to the trade are included.

MEC 1115 Metallurgy: Ferrous Metals

2 0 3 3

Prerequisites:

Corequisites:

Investigates the properties of ferrous metals and tests to determine their uses. Instruction includes some chemical metallurgy to provide background for the understanding of the physical changes and causes of these changes in metals. Physical metallurgy of ferrous metals, producing iron and steel, theory of alloys, shaping and forming, steel, classification of steels, and cast iron are the topics for study.

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MEC 1116 Metallurgy Nonferrous Metals

2 0 3 3

Prerequisites: MEC 1115

Corequisites:

Continuation of the study of physical metallurgy. Study of the non—ferrous metals including: bearing metals (brass, bronze, lead), light metals (aluminum and magnesium), and copper and its alloys. Power metallurgy, titanium, zirconium, indium, and vandium are also included.

MEC 1117 Machine Maintenance

2 0 3 3

Prerequisites:

Corequisites:

This course is designed to acquaint the student with the movable parts of machine tools, the basic methods of joining these parts together, adjustments necessary to obtain satisfactory service, the proper use of lubricants and the removal and reinstallation of worn parts. Live projects and the use of service manuals will be included.

MEC 1120 Duct Construction and Installation

3 0 6 5

Prerequisites:

Corequisites:

Study of the fabrication, installation, and maintenance of ducts using various materials and fittings to achieve correct air flow. Course covers safety, fabrication, tools and equipment, cutting and shaping, fasteners and fabrication practices, fans, insulation,

Class	Lab	Clinical/Credit Shop Hours
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ventilating hoods, layout methods, and development of duct systems. The student will study the installation of various duct systems and perform on-the-site modifications.

MEC 1123 Advanced Machine Set Up And Operations **2 0 6 4**

Prerequisites:

Corequisites:

An advanced level shop course for students who are able to plan machining procedures and set ups and operate machines to a high degree of accuracy. Precision grinding and machining irregular shapes using a variety of materials and tooling will be emphasized. In-depth measuring and gauging of mating parts are included.

MEC 1133 Electrical and Mechanical Maintenance **3 0 6 5**

Prerequisites:

Corequisites:

Acquaints the student with the basic fundamentals of installation, maintenance, and repair of machines. Miscellaneous electrical, mechanical, hydraulic, pneumatic, and lubrication devices are installed and maintained. Methods of rigging and machine installation including location leveling and fastening are covered. The use of precision measuring tools and checking for accuracy, squareness and correct center line distances is stressed for prestart inspection.

MEC 1134 Electrical and Mechanical Maintenance **3 0 6 5**

Prerequisites: MEC 1133

Corequisites:

A study is made of those parts of the electrical code which affect the work of the industrial maintenance electrician. Practical experience is provided in wiring, installing, and connecting the various types of services for lighting, heating, and power installations. Training is provided in troubleshooting in the identification and testing of circuits and in making mechanical adjustments and related maintenance operations of various machines. Schematic diagrams showing the plan of operation for each system, electrical or mechanical, are used.

249

MEC 1136 Computer Aided Machining **2 6 0 5**

Prerequisites:

Corequisites:

A study of computer aided machining using off-line computers and CAM software to prepare a drawing of simple parts and generate the numerical controls codes necessary to machine parts on a C.N.C. vertical milling machine or lathe. Students will prepare job plans, make a tooling file, describe the part and generate C.N.C. codes. These code files will be transferred to the appropriate machine tool where the part will be made.

MEC 1137 Computer Aided Machining II **2 6 0 5**

Prerequisites:

Corequisites:

A continuation of MEC 1136 which will prepare the student to create C.N.C. code for more advanced geometry. This course will also include transferring part geometry from a CAD drawing and generating C.N.C. code from which machined parts will be made.

				Clinical/Credit
	Class	Lab	Shop	Hours
MEC 1140 Hydraulics and Pneumatics Fundamentals	3	0	3	4

Prerequisites:

Corequisites:

Basic theories and uses of hydraulic and pneumatic systems and also the combination of systems. Basic designs and functions of circuits and motors, controls, electro-hydraulic servo-mechanisms, filtration, accumulators, and reservoirs. Installation and maintenance of the components will be made by the students.

MEC 1147 Systems of Measurement and Measuring Tools	2	0	0	2
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Prerequisites:

Corequisites:

Study of measurement and the various systems. How to use and read the various rules, scales, calipers, micrometers, and other precision measuring tools used in mechanical work. Included is the reading of the basic electrical meters used in testing.

MEC 1165 Machine Shop Theory & Practice I	2	0	6	4
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Prerequisites:

Corequisites:

An introduction to the machinist trade and the potential it holds for craftsmen. It deals primarily with the identification, care, and use of basin hand tools and precision measuring instruments. Elementary layout procedures, lathe, drill press, grinding (off-hand) introduced both in theory and practice. The MEC 1165 and MEC 1166 series is equivalent to MEC 1101.

MEC 1166 Machine Shop Theory & Practice II	1	0	6	3
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Prerequisites: MEC 116

Corequisites:

Continuation of MEC 1165. Additional progress in lathe theory and practice. Introduction to milling machine. The MEC 1165 and MEC 1166 series is equivalent to MEC 1101.

MEC 1170 Introduction to CNC Machining	1	2	0	2
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Prerequisites: MEC 1102, or permission of instructor

Corequisites:

An introduction to the set-up, operation, and programming of Numerical Control and Computer Numerical Control machine tools. Concepts, capabilities, and applications of CNC Machining are to be explored. Equipment descriptions, operator controls, data input, program preparation and storage will be studied. Students will gain skills in manual parts programming, set-up, and operation of CNC Machines. Operator safety and machine protection will be stressed.

MEC 1171 Operation of CNC Machine Tool Equipment	1	3	0	2
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Prerequisites: MEC 1170

Corequisites:

An introduction to the set-up and operation of computer assisted numerical control equipment. Description, operators controls and indicators, operation in set-up, data input, automatic operation, and tool holders will be areas of study. Safety and machine protection will be stressed at all times.

			Clinical/Credit
	Class	Lab	Shop Hours

MEC 1171 Operation of Computer Numerical Control Machines	1	3	0	2
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Prerequisites:

Corequisites:

An introduction to the set up and operation of computer assist numerical control equipment. C.N.C. description, operators controls and indicators, operation in set up, data, input, automatic operation, and tool holders will be areas of study. Safety and machine protections will be stressed at all times.

MEC 1172 Programming CNC Milling Machines	2	2	0	3
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Prerequisites:

Corequisites:

An introduction to the programming of computer numerical control milling machines. Looping macro subroutines, drill cycle, spot facing cycle, deep hole drilling cycle, boring cycle, multi-hole row drilling cycle, inch dimension system, metric dimension system, facing cycle, pocket milling cycle, internal hole milling cycle and cutter diameter compensation will be areas of study. Safety and machine protection will be stressed at all times.

MEC 1173 Advanced Programming for CNC Milling Machines	2	2	0	3
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Prerequisites:

Corequisites:

A continuation of study in the programming of computer numerical control equipment. Circular interpolation, multi-quadrant circular interpolation, polar coordinates, cutter path transformation, continuous path milling, CAM subroutines will be used in program study whenever feasible.

MEC 1182 Programming C.N.C. Lathes	2	2	0	3
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Prerequisites:

Corequisites:

An introduction to the programming of computer numerical control lathes. Subroutines, drill cycle, deep hole drill cycle, boring cycle, inch-metric system, facing and rough turning cycles, tapers, threading, tool nose radius, and tool offsets will be the areas of study. Safety and machine protection will be stressed at all times.

MEC 1183 Advanced Programming for C.N.C. Lathes	2	2	0	3
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Prerequisites: MEC 1182

Corequisites:

A continuation into the programming of CNC controls. Advanced turning, boring, tapering, and threading procedures will be studied. Programmable zero, cutter compensation and L,P, and R parameters will be used. C1800 programming may be introduced. Blueprint programming along with the conversational control should be introduced. Advanced programs, including most of the above, will be written during this course.

MEC 1210 Production Procedures	3	0	3	4
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Prerequisites:

Corequisites:

A study of product planning and control, scheduling and routing of operations. Principles and techniques of quality control and cost saving, sampling inspections and graphs and charts are emphasized. Both statistical and dimensional quality control are reviewed as well as the different processes utilized in the production of metal component parts.

				Clinical/Credit
	Class	Lab	Shop	Hours
MEC 1210 Production Procedures	3	0	3	4

Prerequisites:

Corequisites:

A study of product planning and control, scheduling and routing of operations. Principles and techniques of quality control and cost saving sampling inspections and graphs and charts are emphasized. Both statistical and dimensional quality control are reviewed as well as the different processes utilized in the production of metal component parts.

MEC 1211 Machine Maintenance	2	0	3	3
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Prerequisites:

Corequisites:

Fundamentals of repairing machine tools and related equipment or accessories. Emphasis on manufacture of replacement parts; alignment or adjustment of pulleys, gears, gibbs, and clutches; and modification or restoration of older equipment.

MEC 1227 Production Tooling	2	2	0	3
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Prerequisites:

Corequisites:

Emphasis will be placed on tooling currently being used in the high production of metal parts. Tungsten, carbide and other cutting tool materials will be discussed. Additional topics to be studied will include coatings and special geometries, solid carbide tooling, indexable insert tools and their usage on C.N.C. and other production machine tools.

MEC 1270 C.N.C. Lathe Operations	1	0	3	2
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Prerequisites:

Corequisites:

An introduction to the set up and operation of the C.N.C. turning centers. Concepts, capabilities and applications of turning centers will be explored. Equipment descriptions, operator controls, data input and manipulation, tooling and machine protections will be stressed. Students will study current equipment similarities and differences and will be encouraged to incorporate machines they may operate in their work place. Operator safety and equipment protection will be strongly emphasized.

MEC 1271 C.N.C. Milling Operations	1	0	3	2
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Prerequisites:

Corequisites:

An introduction to the set up and operation of C.N.C. mills or machining centers. Concepts, capabilities and applications of machining centers will be explored. Equipment descriptions, operator controls, data entry and manipulation, tooling and machine protection will be stressed.

MEC 1290 EDM Machining	2	0	6	4
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Prerequisites:

Corequisites:

An introduction to basic EDM machine tool types, set up, operation and uses. The effect of voltage, amperage, capacitance and frequency will be explained. Electrode materials such as brass, copper tungsten, graphite and many other types will be discussed and used.

MEDICAL ASSISTING

MED 101 Orientation to Health Careers **2 0 0 2**

Prerequisites:

Corequisites:

Career exploration with emphasis on an introduction to the role of the medical assistant and interrelated roles of other health care professions including personal qualifications and job responsibilities. Explores health care agencies, history of health care, and future trends.

MED 102 Medical Office Administration I **3 0 0 3**

Prerequisites:

Corequisites:

Introduction to the office environment and procedures. Medical record keeping. Job descriptions for all office personnel. Maintenance and care of office property and inventory.

MED 103 Medical Office Administration II **4 2 0 5**

Prerequisites:

Corequisites:

Continuation of MED 102 includes maintaining office records, scheduling appointments, billing, and collections procedures. Patient interviewing and data collection using concepts of human development. Preparation of the examination and treatment area. Identification of equipment and instruments.

MED 104 Medical Office Administration II **4 2 0 5**

Prerequisites:

Corequisites:

Patient preparation and physician assisting with the physical exam. Clinical and diagnostic procedures. Aseptic techniques including infection control and community health concepts.

MED 111 Laboratory Procedures **2 2 0 3**

Prerequisites:

Corequisites:

Accuracy and safety in the collection and processing of laboratory specimens. Performance of routine diagnostic tests with accuracy, speed, and confidentiality.

MED 201 Medical Office Administration IV **3 2 0 4**

Prerequisites:

Corequisites:

Dealing with physical and psychological emergencies. Administration of first aid. Time management and public relations. Maintenance of office inventory and supplies. Preparation of payroll.

MED 202 Medical Office Administration V **3 2 0 4**

Prerequisites:

Corequisites:

Professional issues including malpractice, continuing education, professional organizations are covered. Instruction in patient education. Safe use of ionizing radiation equipment.

				Clinical/Credit
	Class	Lab	Shop	Hours
MED 203 Clinical Education	2	0	24	10

Prerequisites:

Corequisites:

Opportunity to perform the role of the medical assistant in a physician's office or other health care setting. Evaluation of competency achievement is made.

MED 211 Medication Administration	2	2	0	3
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Prerequisites:

Corequisites:

Identifies commonly used medications, the uses, side effects, reactions, and interactions. Prepares the student to administer medication when under the supervision of the physician.

MED 1100 Hospital Ward Secretary: Theory and Practice	12	0	12	16
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Prerequisites:

Corequisites:

Designed to prepare qualified students to perform a variety of clerical duties such as maintaining the patient's charts, requesting equipment and services for the patient, requesting supplies and equipment for the nursing unit, and completing all forms correctly. Emphasis placed on communication techniques including communication with the patient via the nurse-patient intercom, communication with the hospital staff, physicians, and visitors, as well as telephone communications. Clinical experiences provide opportunities for applying classroom learning in the hospital setting.

MUSIC

MUS 102 Choral Music II	0	2	0	1
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254

Prerequisites:

Corequisites:

A practical course in choral music extending the learning experiences of MUS 101. Course content will include exercises for improving the understanding of modes, dynamics, expression and special effects. Music learned will be of a general nature.

MUS 103 Choral Music III	0	2	0	1
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Prerequisites:

Corequisites:

A practical course in choral music, extending the learning experiences of MUS 101 and MUS 102. Course content will include refining of tonal quality and increasing performing and presentation skills. Also included will be the study of showmanship and the ability to project the feeling of the music to the audience. Music learned will be of a general nature.

MUS 150 Music Appreciation	3	0	0	3
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Prerequisites:

Corequisites:

Introduces music: its elements, forms, and stylistic features. The music of major composers is studied, with emphasis on development of aural awareness.

NURSING

NUR 101 Fundamentals of Nursing

6 4 3 9

Prerequisites: None

Corequisites: NUR 110

Introduces the concepts of the health illness continuum throughout the life span and to the patient and patient's environment, to beginning concepts and methods of interpersonal communication including loss, death, and the grieving process, and to the nurse's ethical, legal and historical responsibilities. Emphasis is placed on the nursing process and principles and techniques required to meet the needs of patients, stressing body mechanics, asepsis and other supplementary nursing functions.

NUR 102 MedicalSurgical Nursing I

8 2 12 13

Prerequisites: First quarter courses in accordance with the curriculum master plan.

Corequisites:

Introduces medical-surgical nursing with continuing emphasis on the nursing process. Assists the student in planning and implementing nursing care for patients with medical-surgical diseases and disorders, utilizing knowledge of causes and classification, body reactions (both physical and emotional), developmental stages with emphasis on the adult and aging patient, and pre and post-operative care. Emphasis is placed on cancer, diseases of the blood, respiratory system, neurological system, endocrine, and gastrointestinal system as related to the patient. Includes pharmacologic concepts and nutritional aspects of disease process and diet therapy as related to the specific medical-surgical condition. There is a continuation from NUR 101 of interpersonal communication, legal, ethical, and sociological aspects of patient care and basic health teaching.

NUR 103 MedicalSurgical Nursing II

8 2 12 13

Prerequisites: Second quarter courses in accordance with curriculum master plan.

Corequisites:

Continuation of NUR 102 with emphasis on nursing care of the patient with diseases and disorders of the eye and ear, cardiovascular system urinary system, integumentary system, burns, reproductive system, and the musculo-skeletal system. Introduces first aid, emergency situations, and communicable diseases.

255

NUR 104 Maternal Child Nursing I

8 12 20 12

Prerequisites: Second quarter courses in accordance with the curriculum master plan.

Corequisites:

Introduces maternal child nursing with emphasis on the nursing process. Maternity component presents modern aspects of the normal child bearing process and neonatal period with a brief overview of the complications that affect these processes. Pediatric component reviews growth and development of each age group and relates each to hospitalization and common pediatric illnesses and conditions. Includes nutritional, emotional, pharmacological, legal, and ethical aspects of care specific to maternal child nursing. Integrates uncomplicated nurse-patient-family relationships and communication.

NUR 110 Pharmacology

2 0 0 2

Prerequisites:

Corequisites: Mat 114-Basic Math of Health Professions

Presents sources, effects, pharmacodynamics, and usage of therapeutic agents. Covers prescription of medications and nursing implications. Prepares the student to calculate and administer medications. Identifies methods of using the nursing process in

			Clinical/Credit
Class	Lab	Shop	Hours

emphasizes the use of advanced assessment and clinical skills, establishment and prioritization of health care needs, development of short and long term goals, and evaluation and revision of nursing care. Provides opportunities for development, implementation, and evaluation of teaching plans directed toward promotion and restoration of biopsychosocial health.

NUR 204 Patient Care Management 4 0 6 6

Prerequisites: Sixth quarter courses in accordance with the curriculum master plan.

Corequisites:

Continuation of the synthesis of nursing knowledge and implementation of advanced clinical skills for patients with complex nursing needs. Introduces concepts of group dynamics, conflict resolution, management, leadership styles, and management systems. Given a small group of patients, the opportunity is provided for the student to utilize the nursing process to gather patient information, establish priorities of care, make assignments, delegate, and evaluate care implemented by team members. Addresses problems encountered by nurses as they make the change from student to staff nurse and addresses current trends which affect the nursing profession.

NUR 210 Nursing Update: A Refresher Course 12 4 12 18
for Nurses

Prerequisites:

Corequisites:

Designed to assist the inactive registered nurse to refresh and update nursing skills and knowledge. Focus on using the nursing process to deliver safe and effective care to adult medical-surgical patients. Approved by the Board of Nursing to enable previously licensed nurses to regain licensure which has lapsed.

NUR 1100 Nursing Assistant Theory and Clinical Practice 8 8 12 16

Prerequisites:

Corequisites:

Designed to prepare qualified men and women to give effective bedside nursing care to selected patients. Students are taught the role of the nurse assistant, concepts of health and illness, functional relationships within the nursing care facility, fundamentals of effective interpersonal relationships, basic nursing procedures related to the daily needs of patients, and selected special procedures. Clinical experiences in hospitals and nursing homes provide students with the opportunity to apply the techniques learned in the classroom.

NUTRITION

NUT 101 Basic Nutrition 2 0 0 2

Prerequisites: BIO 101 or by permission of department chairperson

Corequisites: BIO 101 or by permission of department chairperson

The science of normal nutrition including the study of the nutrients and their function within the body and the physiological processes of digestion, absorption, and metabolism. Emphasizes sources and types of food necessary for the balanced diet. Includes social, cultural, and economic factors which influence dietary needs.

ORIENTATION

ORI 100 New Student Seminar 1 0 0 1

Prerequisites:

Corequisites:

Acquaints the student with the physical, academic, and social environment at Pitt Community College. Covers student academic regulations, administrative procedures, study skills, student service facilities and personnel, student motivation and positive

thinking, student social activities and the Student Government Association, and career decision making.

ORI 150 Study and Test-Taking Skills **1 0 0 1**

Prerequisites:

Corequisites:

A follow-up on the study and test-taking skills that were introduced in ORI 100. More in-depth techniques will be discussed for test preparation and test strategies that are needed for success in college. Through application of these techniques, the student should have the necessary tools to be testwise.

PHYSICAL EDUCATION

PED 150 Foundations in Physical Education **2 0 0 2**

Prerequisites:

Corequisites:

Investigation of efficiency of human performance through study of variables related to total fitness, physical fitness, diet, weight control, degenerative diseases, physiological effects of exercise, and motor skills development. Oriented toward physical activity as a way of life with emphasis upon the role that physical activity should play in leisure oriented societies; include participation in physical activities.

PED 160 Adapted Activities **0 2 0 1**

Prerequisites: Permission of instructor

Corequisites:

PED 161 Archery **0 2 0 1**

Prerequisites:

Corequisites:

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PED 164 Bowling **0 2 0 1**

Prerequisites:

Corequisites:

PED 165 Conditioning **0 2 0 1**

Prerequisites:

Corequisites:

PED 171 Golf **0 2 0 1**

Prerequisites:

Corequisites:

PED 173 Jui-Jitsu and Karate **0 2 0 1**

Prerequisites:

Corequisites:

PED 175 Recreational Activities **0 2 0 1**

Prerequisites:

Corequisites:

				Clinical/Credit
	Class	Lab	Shop	Hours
PED 178 Swimming-Elementary	0	2	0	1
Prerequisites:				
Corequisites:				
PED 179 Swimming-Intermediate	0	2	0	1
Prerequisites:				
Corequisites:				
PED 180 Tennis—Elementary	0	1	0	1
Prerequisites:				
Corequisites:				
PED 181 Tennis-Advanced	0	2	0	1
Prerequisites:				
Corequisites:				
PED 182 Track and Field	0	2	0	1
Prerequisites:				
Corequisites:				
PED 183 Volleyball	0	2	0	1
Prerequisites:				
Corequisites:				
PED 196 Aerobic Exercise	0	2	0	1
Prerequisites:				
Corequisites:				

A total fitness program designed to improve strength, endurance, flexibility, agility, and cardiovascular endurance. The course will also point out why people today have a particular need for aerobic exercise. It will explain the medical, physical, emotional and cosmetic benefits of this type of program. Instructor will make specific suggestions for exercise for special needs.

259

PERSONNEL

PER 150 Personnel Administration	3	0	0	3
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Prerequisites:

Corequisites:

A basic introduction to personnel management covering recruiting, screening, interviewing, selecting, and placing applicants in the organization. Emphasis will be on establishing and maintaining personnel files and complying with and monitoring confidentiality procedures involving Personnel Law. Other topics to be studied include manpower planning, testing, job design and analysis, and organizational values.

PER 155 Personnel Law	3	0	0	3
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Prerequisites:

Corequisites:

A relatively indepth study of the principal regulatory concerns in personnel management with emphasis on employee rights, discrimination, protection and representation. Major concentration will be on Equal Employment Opportunity, Affirmative Action, Worker Compensation, OSHA, employee benefit plans, and other pertinent legislation. Additional topics may include unionization, labor relations, and collective bargaining.

			Clinical/Credit
	Class	Lab	Shop Hours
PER 160 People Skills I: Personal Dynamics	3	0	0

Prerequisites:

Corequisites:

Focuses on recognizing the characteristics of unhealthy, self-destructive behavior and moving toward healthy, non-destructive, positive behavior patterns. Emphasis is on applied psychology and interpersonal communication as these areas help the individual to become a more effective supervisor or manager in the workforce. Major topics include self-concept, assertiveness, listening, feelings, communication styles and conflict resolution.

PER 161 People Skills I: Personal Dynamics	3	0	0	3
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Prerequisites:

Corequisites:

Personnel Dynamics focuses on recognizing the characteristics of unhealthy, self-destructive behavior and moving toward healthy, non-destructive, positive behavior patterns. Emphasis is on applied psychology and interpersonal communication as these areas help the individual to become a more effective supervisor or manager in the workforce. Major topics include self-concept, assertiveness, listening, feelings, communication styles and conflict resolution.

PER 162 People Skills II: Interpersonal Dynamics	3	0	0	3
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Prerequisites: PER 161 or permission of department chairperson

Corequisites:

Focuses on effectively dealing with various personalities and communication styles on the job. Emphasis will be on continued development of the skills learned in People Skills I: Personal Dynamics and their practical application through case studies, role playing, and other innovative, class-participation techniques. Major topics include non-defensive communication, responsible assertiveness, identification of communication and behavior styles, conflict management and conflict resolution.

PER 163 People Skills III: Organizational Dynamics	3	0	0	3
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Prerequisites: PER 162 or permission of department chairman

Corequisites:

Covers a practical, applied approach to human relations for individuals within a company to work together to meet the overall objectives of the organization. Major areas of study include organizational theories, climate, cultures, values and design. Special emphasis will be given to measuring job satisfaction, breaking down barriers to efficiency, and handling employee differences. Other topics to be studied are decision-making processes, formal vs. informal groups, and organization/career development planning.

PER 165 Compensation and Benefits	3	0	0	3
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Prerequisites:

Corequisites:

Designed to introduce the basic concepts of pay and its role in rewarding performance as well as to expose the student to the basic concepts and types of pension plans and related benefits. The focus of the course is on applied issues in the direct compensation of employees and on developing skills for making compensation and benefit decisions. Major emphasis will be on the factors involved in developing a compensation and benefit system for an organization and maintaining its ability to attract, retain, motivate, and develop a competent workforce.

PER 201 Performance Appraisal Class **3** Lab **0** Clinical/Credit Shop **0** Hours **3**

PER 201 Performance Appraisal

3 0 0 3

Prerequisites:

Corequisites:

Examines the various forms of evaluating worker performance, their uses, benefits, and shortcomings. The student will gain an understanding of the purposes and scope of performance appraisal and its impact on the individual as well as the organization.

PER 211 Leadership and Management Skills 3 0 0 3

Prerequisites: PER 161, 162, 163 or permission of department chairman

Corequisites:

Focus on the qualities and styles of individuals who have been or are known to be leaders. The various characteristics which are identified in leaders will be discussed as well as the circumstances surrounding the rise to leadership. As applied to management, the following concepts will be discussed: coaching, team building, conflict resolution, participative management, negotiating, decision making, and creative thinking.

PER 221 Managerial Communications 3 0 0 3

3 0 0 3

Prerequisites: ENG 103 or permission of department chairman

Corequisites:

Designed to instruct students in written and oral communications for managerial positions with special emphasis on personnel needs. The focus of this course will be on the design and development of company policy and procedure manuals, handbooks, newsletters and other important correspondence. Major areas of consideration include affirmative action plans, suggestion systems, communication committees, employee questionnaires and research interviews. Minor attention will be given to conducting meetings, bulletin board announcements, and reports dealing with absenteeism, drug, alcohol and other disciplinary problems.

PER 261 Training I: Adult Learning 3 0 0 3

3 0 0 3

Prerequisites:

Corequisites:

An introduction to the basic concepts of adult learning. Primary focus will be on the various elements of the instructional set and will concentrate on instructor/trainer tactics which affect adult learning. Major topics will include analysis of training needs, media evaluation, developing lesson plans and basic script writing. Minor areas of discussion will cover learning plateaus, student frustrations, and resistance to change.

PER 262 Training II: Material Preparation 3 0 0 3

3 0 0 3

Prerequisites: PER 261

Corequisites:

Focuses on giving the instructor/trainer practical and substantial assistance in the productive and creative use of instructional aids. Emphasis will be on the tools, equipment, and materials employed in various media techniques. The basic use of filmstrip, slide, overhead, and opaque projectors is stressed as well as the development of materials for audio/visual presentations.

PER 263 Training III: Presentation Skills 3 0 0 3

3 0 0 3

Prerequisites: PER 262

Prerequisites Corequisites:

Stresses the practical application of the concepts and skills developed in Training I and Training II and is designed to bridge the gap between the theoretical aspects of psychology and education. Subject matter is concerned with various strategies such as lecture, discussion, and group participation methods. Of major importance is the effective use of training aids in the presentation process.

PHILOSOPHY

Phi 150 Introduction to Philosophy	5	0	0	5
Prerequisites: ENG 094 or equivalent				
Corequisites:				

Introduction to the study of philosophy through the examination of major philosophical problems.

PHOTOGRAPHY

PHO 114 Photography	1	2	0	2
Prerequisites: PHO 114				
Corequisites:				
Introduction to the field of photographic equipment, and materials. A study of the fundamental techniques of the camera. The PHO 114 and PHO 115 series will substitute for PHO 116.				
PHO 115 Photography	1	2	0	2
Prerequisites: PHO 114				
Corequisites:				
A study of the camera and its expressive possibilities in relation to the field of design and visual communications. Assigned camera projects, darkroom procedures, and equipment. PHO 114 and PHO 115 taken in series will substitute for PHO 116.				
PHO 116 Photography	2	4	0	4
Prerequisites:				
Corequisites:				
Introduction to the field of photography, photographic equipment, and materials. Study of the fundamental techniques of the camera and its expressive possibilities in relation to the field of design and visual communications. Assigned camera projects, darkroom procedures, and equipment.				
PHO 215 Photography	1	2	0	2
Prerequisites: PHO 116				
Corequisites:				
Advanced photographic techniques and materials. Participation in dark room and studio procedures illustrating the various applications and creative possibilities of commercial photography. PHO 215 and PHO 216 taken in series will substitute for PHO 217.				
PHO 216 Photography	1	2	0	2
Prerequisites: PHO 215				
Corequisites:				
A continuation of the work begun in PHO 215. Emphasis remains on advanced techniques and procedures. PHO 215 and PHO 216 taken in series will substitute for PHO 217.				
PHO 217 Photography	2	4	0	4
Prerequisites: PHO 216				
Corequisites:				
Advanced photographic techniques and materials. Participation in studio and laboratory procedures illustrating the various applications and creative possibilities of photography in advertising.				

				Clinical/Credit
	Class	Lab	Shop	Hours
PHO 218 Special Problems in Photography	2	4	0	4

Prerequisites:

Corequisites:

Students pursue approved special interest problems under the guidance and supervision of the instructor.

PHO 219 Special Problems in Photography	2	4	0	4
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Prerequisites:

Corequisites:

Students pursue approved special interest problems under the guidance and supervision of the instructor.

PHO 220 Special Problems in Photography	2	4	0	4
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Prerequisites:

Corequisites:

Students pursue approved special interest problems under the guidance and supervision of the instructor.

PHYSICS

PHY 101 Technical Physics	4	2	0	5
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Prerequisites:

Corequisites: MAT 102

Fundamental course covering several basic principles of physics. Typical topics include systems of measurement, Newton's laws of motion, energy, equilibrium conditions, and statics.

PHY 102 Technical Physics	4	2	0	5
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Prerequisites: MAT 102; PHY 101

Corequisites:

Continues PHY 101. Typical topics include momentum, elasticity, circular motion, simple machines, thermal properties of matter, and heat and thermodynamics.

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PHY 103 Technical Physics	4	2	0	5
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Prerequisites: MAT 102; PHY 101

Corequisites:

Continuation of PHY 102 with specific attention given to topics related to architecture. Acoustics, light and illumination, and electricity are typical topics covered.

PHY 104 Technical Physics	3	2	0	4
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Prerequisites: MAT 102; PHY 101

Corequisites:

Continues PHY 102 with specific attention given to topics related to electronics. Includes rotary motion, simple harmonic motion, sound, circuits, and selected topics in electricity and magnetism.

PHY 108 Physics for Respiratory Therapists	3	2	0	4
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Prerequisites:

Corequisites: MAT 101

A course covering the basic physics principles applicable to respiratory therapy. Typical topics include system of measurement, work, energy, power, hydraulics, hydrostatics, gases, heat, and electricity.

				Clinical/Credit
	Class	Lab	Shop	Hours
PHY 120 Introduction to the Metric System	3	0	0	3

Prerequisites:

Corequisites:

Involves familiarization with metric units and usage, conversions to and from the British Engineering System of units, and basic algebraic solutions for the unknown as applied to problems involving units.

PHY 260 Physics and the Environment I	3	2	0	4
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Prerequisites: ENG 094 or equivalent; MAT 101

Corequisites:

A conceptual physics course that relates some of the basic principles of physics to their uses and consequences in our world and lives. Major topics include motion, properties of matter, heat, and sound. This is a science course designed primarily for nonscience majors, hence the use of mathematics is deemphasized, being used occasionally to avoid wordiness in communicating a concept. Laboratory experiences are designed to reinforce the concepts discussed in class.

PHY 261 Physics and the Environment II	3	2	0	4
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Prerequisites: PHY 260

Corequisites:

A continuation of PHY 260 dealing with electricity and magnetism, light, atomic physics, and nuclear physics. Concepts are again emphasized, and mathematical computations used only occasionally.

PHY 262 Solar Influences and Applications	3	2	0	4
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Prerequisites: PHY 260

Corequisites:

A non-calculus introductory course to the basic physics of how the sun physically influences the earth, and how this solar energy can be converted to other useful forms of energy. Particular attention is given to residential applications.

PHY 1101 Applied Physics	3	2	0	4
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Prerequisites: MAT 1101

Corequisites:

Introduction to physical principles. Core topics include systems of measurement, properties of matter, solids and their characteristics, work, energy, power, and simple machines. Additional specialized topics for the various curricula are basic properties of liquids, gases, heating and refrigeration, and electricity.

PHY 1103 Principles of Electricity	3	2	0	4
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Prerequisites: MAT 100

Corequisites:

Study of the electron theory, Ohm's Law, series and parallel circuits, AC and DC circuits, magnetism, and batteries as applied to the automobile ignition system.

PLUMBING

PLU 1110 Plumbing Pipework	2	0	6	4
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Prerequisites:

Corequisites:

This course will introduce students to the tools, fittings, and small equipment used by plumbers. Most of the time will be spent in the shop where the student can learn how to handle these materials correctly. The student will perform operations such as

Class	Lab	Shop	Clinical/Credit Hours
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threading, cutting, caulking and sweating of the various kinds of pipe and tubing used in the trade.

PME 1010 Air Conditioning **2 0 3 3**

Prerequisites:

Corequisites:

Covers the basic principles of air conditioning and the special application of these principles to farm equipment. Maintenance, troubleshooting, and repair are stressed.

PME 1030 Electrical Systems **3 0 3 4**

Prerequisites:

Corequisites:

Basic study of the electrical systems found in farm equipment. Special emphasis given to batteries, starters, generators, alternators, and ignition and lighting systems. Identification of trouble, servicing, and repair as applicable to electrical systems stressed.

PME 1040 Farm Harvesting Equipment **3 0 6 5**

Prerequisites:

Corequisites:

General maintenance and repair of harvesting equipment. Self-propelled grain combines and automatic tobacco harvestors given special attention in the classroom and in the field.

PME 1045 Equipment Servicing **3 0 12 7**

Prerequisites: Permission of instructor

Corequisites:

Gives student experience in troubleshooting and repair of gasoline and diesel engines, power trains, and fuel systems associated with farm equipment. Provides opportunity to learn the operating principles of self-propelled and tractor drawn equipment and field experience in how to adjust field equipment. May substitute for part-credit in COE 101D.

PME 1046 Shop Practices and Tool Operations **3 0 6 5**

Prerequisites:

Corequisites:

Gives students experience in operating procedures of shop tools and the correct use of hand tools, cutting tools, and testing equipment. Gives opportunity to learn operation of shop tools such as drill press, valve grinders, and hand grinders to cut threads with the tap and die sets, and to operate test equipment for checking tractor components.

PME 1050 New Tractor and Equipment Setup **1 0 3 2**

Prerequisites:

Corequisites:

Initial preparation of new tractors and equipment for customer delivery; unloading, assembling, and delivery of the tractor or equipment.

PME 1090 Auto Care and Tune-Up **0 0 3 1**

Prerequisites:

Corequisites:

An introduction to the fundamental parts and systems of an automobile, with emphasis placed on basic troubleshooting, general maintenance, and tools.

				Clinical/Credit
	Class	Lab	Shop	Hours
PME 1100 Basic Auto Maintenance	0	0	3	1
Prerequisites: PME 1101				
Corequisites:				
An introduction to the fundamental parts and systems of an automobile with emphasis placed on basic troubleshooting, general maintenance and tools.				
PME 1101 Internal Combustion Engine	5	0	12	9
Prerequisites:				
Corequisites:				
Development of a thorough knowledge of and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of gasoline and diesel engines. Testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, and cooling systems; proper lubrication; and methods of testing, diagnosing, and repairing are included.				
PME 1102 Electrical Systems	5	0	12	9
Prerequisites:				
Corequisites:				
Theory and operation of ignition, cranking, charging, lights, and accessories systems. The laboratory is used to demonstrate various test equipment and electrical checks. Students spend much lab time learning to use various pieces of auto electrical test equipment.				
PME 1104 Fuel Systems: Gasoline and Diesel	5	0	9	8
Prerequisites:				
Corequisites:				
Designed to give students a solid background in the theory and operation of carburetors, fuel pumps, newer emission control devices; and a working knowledge of the auto and diesel fuel systems. In laboratory training periods students disassemble various carburetors, perform tests, and adjust to specifications. All test equipment demonstrated to and used by students.				
PME 1105 Diesel Engines	5	0	6	7
Prerequisites:				
Corequisites:				
Development of a thorough knowledge and ability in using, maintaining, and storing the various hand tools and measuring devices needed in engine repair work. Study of the construction and operation of components of internal combustion engines. Testing of engine performance; servicing and maintenance of pistons, valves, cams and camshafts, fuel and exhaust systems, and cooling systems; lubrication; and methods of testing, diagnosing, and repairing diesel engines are included.				
PME 1106 Diesel Engines	1	0	6	3
Prerequisites:				
PME 1105				
Corequisites:				
Continuation of practical application of principles introduced in PME 1105.				
PME 1120 Computer Wheel Alignment	0	0	3	1
Prerequisites:				
Corequisites:				
Complete coverage of proper wheel care and alignment. Includes 2-wheel and 4-wheel procedures applicable in today's automotive industry. Latest state-of-the-art equipment, the Hunter 4-Wheel Computer Aligner, will be used. PME 1120, 1121, 1122 series is equivalent to PME 1123.				

			Clinical/Credit
	Class	Lab	Shop Hours

PME 1121 Brakes; Chassis; and Suspension I 1 0 3 2

Prerequisites: PME 1120

Corequisites:

Continues topics introduced in PME 1120 as they relate to a complete study of various braking systems employed on automobiles and lightweight trucks; emphasis on operation, proper adjustment, and repair. Servicing of power brakes emphasized. PME 1120, 1121, 1122 series is equivalent to PME 1123.

PME 1122 Brakes; Chassis; and Suspension II 2 0 3 3

Prerequisites: PME 1121

Corequisites:

Continues topics introduced in PME 1121 as they contribute to principles and functions of the components of the automotive chassis. Practical job instruction in adjusting and repairing of suspension systems. PME 1120, 1121, 1122 series is equivalent to PME 1123.

PME 1123 Brakes; Chassis; and Suspension 3 0 9 6

Prerequisites:

Corequisites:

Complete coverage of proper wheel care and alignment. Includes 2-wheel and 4-wheel procedures applicable to day's automotive industry. Latest state-of-the-art equipment, the Hunter 4-wheel Computer Aligner, will be used. Covers a study of various braking systems employed on automobiles and lightweight trucks; emphasis on operation, proper adjustment, and repair. Servicing of power brakes emphasized. Principles and functions of the components of the automotive chassis. Practical job instruction in adjusting and repairing of suspension systems.

PME 1124 Power Trains 3 0 9 6

Prerequisites:

Corequisites:

Comprehensive study of the principles of functions of the automotive power train. Includes study of the clutch conventional transmission, drive shaft, and the rear axle assembly. Identification of trouble, servicing problems, and repair of the power train system covered.

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PME 1125 Auto Servicing 3 0 9 6

Prerequisites: PME 1102, 1123; AHR 1101

Corequisites:

Emphasis on the shop procedures necessary in troubleshooting the various component systems of the automobile. Troubleshooting of automotive systems provides a full range of experiences in testing, adjusting, repairing, and replacing components. Close simulation to an actual automotive shop situation will be maintained.

PME 1126 Industrial Gasoline Engines 1 0 3 2

Prerequisites:

Corequisites:

Covers four-cycle air-cooled engines, ignition, fueling, cooling, and lubrication systems. Maintenance and repair emphasized both in theory and practice.

PME 1135 Basic Fuel Systems 3 0 3 4

Prerequisites:

Corequisites:

Thorough study of the fundamentals of gasoline and diesel fuel systems with lectures on carburetors and diesel principles and functions of components. Laboratory practice in application of service, repair, diagnosis procedures; assembly removal and replacement.

				Clinical/Credit
	Class	Lab	Shop	Hours
PME 1136 Hydraulics	2	0	6	4
Prerequisites:				
Corequisites:				
Fundamental hydraulics and its use to transmit power. Study of components and their function and pumps, lines, cylinders, valves, gauges, and controls. Also includes systems servicing, test points, testing, and adjusting; proper care, use, installation, and storage of test equipment, and minor repairs, assembly removal, and replacement.				
PME 1137 Power Trains	4	0	6	6
Prerequisites:				
Corequisites:				
Covers basic fundamentals, function, and operation of major components used to transmit power on heavy equipment; clutches, transmissions, planetary gearing, torque converters, final drives, differentials, and brakes; and servicing, testing, minor adjustment, assembly removal, and replacement.				
PME 1202 Electricity Electronics	5	0	9	8
Prerequisites:				
Corequisites:				
Thorough study of theory and operation of individual automotive electrical units. Includes analysis and repair of all automotive electrical components. Course is planned to supplement the engine electrical course for first year students and to help them develop a knowledge of transistor circuits and their application to conventional electrical components and circuitry.				
PME 1204 Emission Controls	5	0	6	7
Prerequisites:				
Corequisites:				
In-depth coverage of the operation of the P.C.V. system, exhaust emission control systems, evaporative emission control systems, and scheduled maintenance operations. All test equipment involved in diagnosing emission control problems is used by students.				
PME 1208 Specialized Auto Electronics I	1	2	0	2
Prerequisites:				
Corequisites:				
Gives the student a working knowledge of basic electricity and the use of various measuring devices used in servicing automobile electrical and computer systems. The student will cover fundamentals, series circuits, parallel circuits, schematics and diagnosis, and wire repair.				
PME 1209 Specialized Auto Electronics II	1	2	0	2
Prerequisites:				
Corequisites:				
A continuation of PME 1208. The student will cover semiconductors, transistors, and microprocessors.				
PME 1210 Auto Engine Electronics	1	2	0	2
Prerequisites:				
Corequisites:				
Through the use of films, lectures, and demonstrations, covers the purposes and functions of the solid-state logic systems and microcomputer used to accurately control carburetion, timing, and emission control. Ample time for hands on experience will be provided.				

				Clinical/Credit
	Class	Lab	Shop	Hours
PME 1224 Automatic Transmissions	5	0	12	9

Prerequisites: PME 1124

Corequisites:

Instruction includes classroom study, demonstrations, and student participation in disassembly, reassembly and testing of selected transmissions. Special emphasis is placed on principles, function, construction, operation, servicing, and troubleshooting procedures and repair of various types of automatic transmissions.

PME 1230 Auto Service Excellence Test Review	5	0	0	5
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Prerequisites:

Corequisites:

Complete review of all the eight tests given to auto mechanics for certification by the National Institute for Automotive Service Excellence. Particular attention given to test taking techniques.

POLITICAL SCIENCE

POL 102 National Government	3	0	0	3
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Prerequisites:

Corequisites:

English and colonial background, the Articles of Confederation, and the framing of the Federal Constitution. The nature of the Federal union, state rights, Federal power, political parties. The general organization and functioning of the national government.

POL 103 State and Local Government	3	0	0	3
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Prerequisites:

Corequisites:

A study of state and local government, state-federal interrelationships, and the functions and prerogatives of the branches. Problems of administration, legal procedures, law enforcement, police power, taxation, and revenues and appropriations. Special attention given to North Carolina.

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POL 150 Introduction to U S Government	5	0	0	5
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Prerequisites: Specified score on reading placement test or ENG 094

Corequisites:

American national government with emphasis on its origins, development, structure, and functions.

POLICE SCIENCE

PSC 102 Criminology	3	0	0	3
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Prerequisites:

Corequisites:

Survey of the historical and contemporary theories associated with the underlying causes of criminal behavior.

				Clinical/Credit	
		Class	Lab	Shop	Hours
PSC 103 Penology		3	0	0	3
Prerequisites:					
Corequisites:					
Study of the historical development of the U.S. prison systems and survey of contemporary methods employed by the North Carolina Youth Development Commission, Parole Board, Probation Commission, and the Corrections Department.					
PSC 110 Juvenile Delinquency		5	0	0	5
Prerequisites:					
Corequisites:					
Study of the factors contributing to juvenile delinquency and evaluation of the methods employed in delinquency control. Special attention given to the role of juvenile agencies and to the legal procedures utilized in dealing with offenders.					
PSC 200 Basic Law Enforcement Training		14	2	24	23
Prerequisites:					
Corequisites:					
Prepares individuals to take the Basic Training—Law Enforcement Officers certification examination mandated by the North Carolina Criminal Justice Education and Training Standards Commission and/or prepares individuals to take the Justice Officers Basic Training certification examination mandated by the North Carolina Sheriff's Education and Training Standards Commission. Successful completion of this curriculum certificate program requires that the student satisfy the minimum requirements for certification by the Criminal Justice Commission and the Sheriff's Commission. Students satisfactorily completing this program should possess at least the minimum degree of general attributes, knowledge, and skills to function as an inexperienced law enforcement officer.					
PSC 201 Patrol Procedures		4	2	0	5
Prerequisites:					
Corequisites:					
Overview of techniques and procedures employed in routine patrol and traffic control.					
270					
PSC 202 Community Relations		2	0	0	2
Prerequisites:					
Corequisites:					
Study of the need for good community relations and the methodology employed in achieving these objectives by criminal justice agencies.					
PSC 213 Identification Techniques		3	2	0	4
Prerequisites:					
Corequisites:					
Survey of contemporary identification techniques with primary emphasis on finger-printing. Students develop skills in taking and classifying rolled impressions and in developing latent lifts through lab practice.					
PSC 220 Police Administration		3	0	0	3
Prerequisites:					
Corequisites:					
An introduction to the principles of organization and administration with emphasis on the theories and techniques used in Law Enforcement agencies.					

				Clinical/Credit
	Class	Lab	Shop	Hours
PSC 240 Firearms and Defensive Tactics	2	2	0	3

Prerequisites: Admission to a Criminal Justice program and permission of instructor.
Corequisites:

Designed to develop respect for the needs, use, and legal liabilities associated with all firearms. Range practice provided with emphasis on the service revolver. Instruction also given in the use of non-lethal weapons and in defensive tactics as used in handling arrested persons.

PSC 241 Police Conditioning	0	2	0	1
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Prerequisites:

Corequisites:

Provides instruction in basic physical fitness for persons entering the Law Enforcement profession.

PSYCHOLOGY

PSY 102 General Psychology	3	0	0	3
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Prerequisites:

Corequisites:

A general survey of psychology: the scientific method, learning development, psychopathology, social psychology, mental health, intelligence, and personality will be topics for discussion. Practical application of information to self and others will be stressed.

PSY 103 Adolescent Psychology	3	0	0	3
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Prerequisites: PSY 102

Corequisites:

Study of the nature and source of the problems of adolescents in western culture, including the physical, emotional, social, intellectual, and personality development of adolescents.

PSY 104 Human Relations	3	0	0	3
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Prerequisites:

Corequisites:

A study of methods of communication and the practitioners' understanding of themselves and others. The practitioner-patient relationship is stressed. Topics include therapeutic communication, death and dying, suicide, assertiveness training, and reduction of stress in one's own life.

PSY 115 Child Growth and Development I	3	0	0	3
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Prerequisites:

Corequisites:

Study of prenatal, infant, and toddler developmental sequence. Emphasis is given to factors influencing development.

PSY 116 Child Growth and Development II	3	0	0	3
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Prerequisites:

Corequisites:

Study of preschool, middle childhood, and adolescent developmental sequence. Emphasis is given to factors influencing development.

				Clinical/Credit
	Class	Lab	Shop	Hours
PSY 120 Human Growth and Development	3	0	0	3

Prerequisites: PSY 150 or permission of department chairperson

Corequisites:

Basic principles of physical, cognitive, and psychosocial development of the individual from conception to death—the human life span. Emphasis is also placed on the detection of abnormal developmental patterns from observations and on conveying this information to significant others.

PSY 150 General Psychology I	4	0	0	4
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Prerequisites: Specified score on reading placement test or ENG 094

Corequisites:

Survey of fundamental principles of human behavior. Includes personality, learning, development, motivation, intelligence, scientific method, psychopathology, and social psychology.

PSY 151 General Psychology II	3	0	0	3
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Prerequisites: Specified score on reading placement test or ENG 094

Corequisites:

Second half of survey of psychology. Includes physiological psychology, sensation, perception, and altered states of consciousness: sleep, thinking, memory, motivation, emotion, stress, and sexuality.

PSY 160 Psychology of Memory and Learning	5	0	0	5
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Prerequisites: PSY 150, or permission of instructor

Corequisites:

A survey of the basic research and methods, beginning theory, and general principles of learning. This will include the topics of forgetting and memory storage and retrieval.

PSY 170 Child Psychology	5	0	0	5
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Prerequisites: PSY 150, or permission of instructor

Corequisites:

The study of the growth and development of children from conception through adolescence with emphasis on the pre-pubescent child.

PSY 180 Abnormal Psychology	3	0	0	3
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Prerequisites: PSY 150

Corequisites:

The study of the behavior, assessment, treatment approaches, and causal factors involved in the various classifications of maladaptive behavior.

PSY 206 Applied Psychology	3	0	0	3
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Prerequisites:

Corequisites:

Study of the psychological principles that help in understanding interpersonal relations in daily life. Attention given to personal and group dynamics so that students may apply the principles of mental hygiene to adjustment problems as students, workers, and members of the general community. Applications of psychological principles studied in relation to handling crisis situations dealing with stress, changing habits, and functioning in family life.

	Class	Lab	Clinical/Credit Shop	Hours
PSY 211 Behavior Disorders	5	0	0	5

Prerequisites: PSY 101 or 150 or 102

Corequisites:

Study of general patterns of abnormal behavior with emphasis on biological and environmental causal factors and human coping mechanisms.

PSY 221 Learning and Behavior	5	2	0	6
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Prerequisites: PSY 150

Corequisites:

Introduction to the basic learning principles and concepts required to explain the acquisition and maintenance of behavior. Emphasis placed on positive and negative reinforcement, punishment, extinction, shaping, fading, chaining, recording, and charting behavior. Self-modification conducted by each student.

PSY 222 Exceptionality	5	0	0	5
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Prerequisites: PSY 120, 150, or permission by instructor

Corequisites:

General concepts of intellectual, sensorial, motor, speech, and social variability among individuals.

PSY 223 Addictive Behavior	3	0	0	3
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Prerequisites:

Corequisites:

Survey of environmental and physical factors that differentiate the addict. Emphasis given to the theories of cause and treatment.

PSY 225 Psychological Assessment	3	0	0	3
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Prerequisites: PSY 150

Corequisites:

Study of the principles of psychological testing, general intelligence tests, differential testing of abilities, and measurement of personality traits.

PSY 228 Deviant Behavior	3	0	0	3
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Prerequisites:

Corequisites:

Provides instruction in mental hygiene, in the underlying causes of drug addiction and alcoholism, and in recognizing and dealing with abnormal individuals.

PSY 230 Psychology and Physiology of Aging	3	0	0	3
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Prerequisites: PSY 150, 101, or 102

Corequisites:

Survey course intended to develop awareness of the inevitability of aging as part of the normal life cycle. Surveys the physical, psychological, and social changes occurring in late middle age and old age with emphasis on the care and treatment of the aged in our society.

PSY 1101 Human Relations	3	0	0	3
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Prerequisites:

Corequisites:

Study of basic principles of human behavior. Problems of the individual studied in relation to society, group membership, and relationships within the work situation.

RESPIRATORY CARE

RCT 101 Respiratory Care I **3 2 0 4**

Prerequisites:

Corequisites: BIO 107, HEA 111, MAT 101

A study of professional ethics, professional organizations, and the history of respiratory therapy. Covers the physical properties of gas and piping systems and gas storage, safety standards, and regulation of pressure and flow. Introduces medical terminology and basic cardiopulmonary resuscitation by AHA Standards.

RCT 102 Respiratory Care II **3 2 0 4**

Prerequisites: RCT 101

Corequisites: BIO 108, CHM 110, RCT 103

Covers the theory of and techniques for administration of oxygen and aerosol therapy. Includes the properties and production of therapeutic vapor and aerosols, "0" devices, analyzers, blenders, artificial airways, and manual ventilation equipment. Students will demonstrate and practice with this equipment during laboratory periods.

RCT 103 Clinical Practice I **0 0 6 2**

Prerequisites: RCT 101

Corequisites: RCT 102

Introduces students to the clinical affiliate hospitals. Introduces the basic organization and operation of the respiratory care services and the physical facilities of the clinical affiliates. Also provides an introduction to the basic aspects of patient care in the hospital environment with the opportunity to observe patient care and practice prepatient contact skills.

RCT 104 Cardiopulmonary Anatomy and Physiology **3 0 0 3**

Prerequisites: RCT 102

Corequisites: RCT 105, 106

An advanced study of anatomy and physiology of the respiratory and circulatory systems. Emphasis on the interrelationship of structure and function, including mechanics of respiration, ventilation, tissue metabolism, O₂ transport, and CO₂ elimination.

RCT 105 Pharmacology **3 0 0 3**

Prerequisites: RCT 102

Corequisites: RCT 104, 106

Presents the student with those medications commonly used in cardiopulmonary diseases and respiratory care. Presents an indepth approach, stressing those medications which effect the nervous, cardiovascular, respiratory, and excretory systems. Covers correct medication usage, administration, and legalities.

RCT 106 Clinical Practice II **0 0 15 5**

Prerequisites: RCT 102

Corequisites: RCT 104, 105

Presents the first student responsibility for patient care. Includes student evaluation for competence in application of basic therapeutic modalities. Also includes in this evaluation process tasks covering patient reporting, medical record documentation, patient assessment, and equipment decontamination.

				Clinical/Credit
	Class	Lab	Shop	Hours
RCT 107 Acid Base Chemistry	3	0	0	3

Prerequisites: RCT 106

Corequisites: RCT 108, 109, 110

A specialized course designed to provide indepth study of acid base regulation, blood gas values, ABG clinical interpretation, and fluid-electrolyte balance.

RCT 108 Continuous Mechanical Ventilation I	3	2	0	4
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Prerequisites: RCT 106

Corequisites: RCT 107, 109, 110

Introduces student to ventilators and monitoring devices. Stresses procedures and techniques, indications and contra-indications, and classification and function of these devices. Laboratory periods include student skills evaluation for assembly, calibration, and functional use of these devices.

RCT 109 Clinical Practice III	0	0	15	5
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Prerequisites: RCT 106

Corequisites: RCT 107, 108, 110

Introduces students to patients requiring mechanical ventilatory support and intensive respiratory care. Presents practice and evaluation of clinical skills required for implementing continuous ventilation, ventilator monitoring, weaning, patient airway maintenance, and arterial blood gas sample collection at the hospital clinical affiliates.

RCT 110 Pathology	4	0	0	4
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Prerequisites: RCT 106

Corequisites: RCT 107, 108, 109

A study of the etiology and pathogenesis of cardiovascular and respiratory diseases. Presents clinical signs and symptoms along with diagnosis and complications.

RCT 111 Diagnostic and Therapeutic Procedures	2	2	0	3
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Prerequisites: RCT 102, 103

Corequisites: RCT 104, 105, 106

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Introduces the student to clinical pulmonary assessment and diagnostic procedures. Also presents therapeutic treatment modalities and procedures.

RCT 201 Continuous Mechanical Ventilation II	2	2	0	3
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Prerequisites: RCT 108

Corequisites: BIO 206, RCT 202, 203

A continuation of procedures and theory relating to mechanical ventilation emphasizing interpretation and application of physiological monitoring, weaning, and arterial blood gas.

RCT 202 Clinical Practice IV	0	0	18	6
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Prerequisites: RCT 109

Corequisites: BIO 206, RCT 201, 203

Refines the student's mastery of those skills and techniques critical to acute patient care as introduced in RCT 109. Also involves the student with pediatric and neonatal therapy including rotations through general and intensive care units.

				Clinical/Credit	
		Class	Lab	Shop	Hours
RCT 203	Perinatology and Pediatrics	2	2	0	3
Prerequisites: RCT 110 Corequisites: BIO 206, RCT 201, 202					
Introduces student to pediatric and neonatal respiratory therapy skills, techniques and procedures, and equipment. Emphasis on embryologic development and the treatment required by premature infants.					
RCT 204	Pediatric Pathophysiology	3	0	0	3
Prerequisites: RCT 203 Corequisites: RCT 205, 206					
A study of genetic, iatrogenic, and disease induced pathology as seen in both the neonatal and pediatric patients. Covers treatment and prognosis.					
RCT 205	Cardiopulmonary Function	3	2	0	4
Prerequisites: RCT 202 Corequisites: RCT 204, 206					
Presents student with a study of techniques and procedures for pulmonary and cardiovascular function testing. Laboratory periods require students to examine and demonstrate the clinical equipment used for these diagnostic procedures.					
RCT 206	Clinical Practice V	0	0	15	5
Prerequisites: RCT 202 Corequisites: RCT 204, 205					
Introduces the practice and application of pulmonary and cardiovascular function testing in the clinical affiliate specialty laboratory. Also continues and refines those neonatal/pediatric respiratory therapy skills presented in RCT 202.					
RCT 207	Clinical Practice VI	0	0	24	8
Prerequisites: RCT 206 Corequisites: RCT 208					
A clinical rotation course designed to augment transition from the student role to the role of a therapist practicing in the work environment. Although the students remain under clinic supervision, they will be expected to function in an independent manner while carrying a case load equivalent to that of the working environment. Additionally, as is possible, offers specialty rotations in clinical areas including: physical therapy, outpatient clinics, management and supervision, and education.					
RCT 208	Respiratory Care Seminar	3	0	0	3
Prerequisites: Corequisites:					
Introduces styles of respiratory care management and departmental structure. Additionally, reviews the legal aspects associated with patient care and instructor level education in cardiopulmonary resuscitation. Students will receive an introduction to microcomputers, basic programming and clinical simulation exams.					

RADIOLOGIC TECHNOLOGY

RDT 101	Radiologic Technology I	4	2	0	5
Prerequisites: Corequisites:					
Orientation to the field of radiologic technology, and specialized areas including darkroom, chemistry and film processing, the basic principles of radiologic exposure, elementary patient care procedures, introduction to medical terminology, and					

			Clinical/Credit
Class	Lab	Shop	Hours

introduction to radiographic positioning as applied to those systems covered under BIO 107.

RDT 102 Radiologic Technology II **4 2 0 5**

Prerequisites: RDT 101; BIO 107

Corequisites:

A study of principles and basic radiographic technique. The radiographic lab will be used extensively for practical demonstrations.

RDT 103 Radiologic Technology III **4 2 0 5**

Prerequisites: RDT 102; BIO 108

Corequisites:

Techniques for basic views of the systems taught under BIO 108, such as soft tissue radiography and fluoroscopy, and preparation of the patient and contrast media for these studies. Skull radiography will also be taught in this series.

RDT 111 Radiographic Positioning **3 2 3 5**

Prerequisites:

Corequisites:

Education in a radiographic laboratory including processing of radiographs, practice in ethical and attitudinal situations during patient contact. Covers patient care and basic positioning for studies of upper and lower extremities, shoulder and pelvic girdles, introduction to thoracic and abdominal viscera, and preparation of the patient for studies, and performance of examinations of the urinary system.

RDT 112 Clinical Education **2 0 12 6**

Prerequisites: RDT 111

Corequisites:

Education in a clinical setting; students continue to improve basic skills in darkroom technique and patient positioning for routine studies taught under BIO 107 and RDT 101. Practice of techniques for roentgenographic studies of the systems studied under BIO 108. Regular sessions of film critiques.

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RDT 113 Clinical Education **3 4 15 10**

Prerequisites: RDT 112

Corequisites:

Education in a clinical setting with emphasis on the preparation and use of contrast media, preparation of the patient for such studies and the performance of examinations of the digestive tract, biliary tract, and urinary tract using contrast media. Students gain experience in fluoroscopic procedure and also make radiographs of the abdominal and thoracic viscera without the use of contrast media. Soft tissue radiography (exclusive of mammography) and location of foreign bodies touched upon. Regular film critique sessions.

RDT 114 Clinical Education **3 4 15 10**

Prerequisites: RDT 103, 104

Corequisites:

Student spends the entire quarter gaining clinical education and developing skill in the techniques of those procedures covered during the first three quarters. Regular film critique sessions.

				Clinical/Credit	
		Class	Lab	Shop	Hours
	RDT 201 Topographic Anatomy			2	0
	Prerequisites: BIO 107, 108			0	2
	Corequisites:				
	Review of anatomy from the standpoint of topographic anatomy and the relationship of organs to each other. Stress is upon the location of each organ using surface landmarks and relation of the organ to other organs within the same anatomic regions.				
	RDT 204 Radiologic Technology IV			4	2
	Prerequisites: RDT 103			0	5
	Corequisites:				
	Continuation of the radiologic technology series. This course is designed to teach quality assurance and quality administration in the radiologic technology program. Special emphasis will be placed on radiation protection, equipment maintenance, trouble shooting, and the implementation and maintenance of a quality assurance program.				
	RDT 205 Radiologic Technology V			4	2
	Prerequisites: RDT 204			0	5
	Corequisites:				
	Special radiographic procedures. Areas to be covered include foreign body localization, bronchography, pediatrics, sialography, pelvimetry, and vascular procedures. Emphasis directed toward all requirements necessary for performing these procedures, including equipment and methodology utilized.				
	RDT 208 Radiologic Technology VI			6	0
	Prerequisites: RDT 217			0	6
	Corequisites:				
	Devoted to a complete review of all subject matter covered during program. Emphasis on discussion of knowledge obtained during rotation through minor affiliates.				
	RDT 210 Pathology			3	0
278	Prerequisites: BIO 108			0	3
	Corequisites:				
	Detailed study of various diseases with emphasis on the ones most commonly seen in the radiology department. Radiographic appearance of the disease and the effect on radiographic exposure required for accurate visualization will be dealt with in depth.				
	RDT 211 Radiologic Physics			3	2
	Prerequisites:			0	4
	Corequisites: MAT 101				
	A course covering the basic physics principles applicable to radiology. Typical topics include systems of measurement, work, energy, power, wave motion, electromagnetic spectrum, electricity, and magnetism.				
	RDT 215 Clinical Education			4	0
	Prerequisites: RDT 114			18	10
	Corequisites:				
	Education in clinical area; radiography of the skeleton, the thoracic and abdominal viscera, and examination of the abdominal viscera using contrast media and fluoroscopy. Emphasis placed on ability to do pediatric radiography and views for radiography of the skeleton.				

				Clinical/Credit
	Class	Lab	Shop	Hours

RDT 216 Clinical Education

3 0 18 9

Prerequisites: RDT 215

Corequisites:

Emphasis placed on ability to assist and perform procedures studied in RDT 205. Students required to show proficiency in all of these areas.

RDT 217 Clinical Education

2 0 18 8

Prerequisites: RDT 216

Corequisites:

Students rotate for a two-week period through each minor affiliate, the Nuclear Medicine Department at the major affiliate, and the special procedures area at the major affiliate to gain knowledge in specialized procedures, nuclear medicine, radiation therapy, and advance imaging modalities.

RDT 218 Clinical Education

1 0 18 7

Prerequisites: RDT 217

Corequisites:

Students complete rotation through minor affiliates and specialized areas in major affiliates.

RDT 219 Review of Radiologic Technology

3 0 0 3

Prerequisites:
Corequisites:

Systematic approach to the review of fundamental technology theory designed to facilitate the preparation of the graduate radiologic technologist for the written examination. Students encouraged to participate in group discussions, and thus share knowledge, information, and clinical experiences, thereby broadening their base of knowledge.

REAL ESTATE
REL 150 Introduction to Religion

5 0 0 5

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Prerequisites: Specified score on reading placement test or ENG 094

Corequisites:

Survey of the history of the major religions of the world: Judaism, Zoroastrian religion, Christianity, Islam, Hinduism, Buddhism, Sikhism, Jainism, Confucianism, Taoism, and Shinto.

REL 160 Introduction to Old Testament Literature

5 0 0 5

Prerequisites:
Corequisites:

Study of the Old Testament, with consideration of relevant cultures, history, and major personalities.

REL 161 Introduction to New Testament

5 0 0 5

Prerequisites:
Corequisites:

Study of the New Testament, focusing on the major teachings of Jesus, the major teachings of the apostle Paul, and the later writings. Special attention paid to the various books' similarities and dissimilarities; to the historical, cultural, and religious background; and to the compilation of the New Testament.

				Clinical/Credit
	Class	Lab	Shop	Hours

RLS 101 Fundamentals of Real Estate: Salesman **2 4 0 4**

Prerequisites:

Corequisites:

This course consists of instruction in fundamental real estate principles and practices, including real estate law, financing, brokerage, closing, valuation, management, and taxation. Also included is instruction on residential building construction, land use, the real estate market and the North Carolina Real Estate License Law and Rules/Regulations of the North Carolina Real Estate Licensing Board.

RLS 102 Fundamentals of Real Estate: Law **3 0 0 3**

Prerequisites: RLS 101

Corequisites: RLS 103

This course consists of advanced-level instruction in real property ownership and interests, transfer of title to real property, land use controls, real estate brokerage and the law of agency, real estate contracts, landlord and tenant law, mortgages/deeds of trust, property insurance, federal income taxation of real estate, the N.C. Real Estate License Law, Rules/Regulations of the N.C. Real Estate Licensing Board, and the Licensing Board's "Trust Account Guidelines."

RLS 103 Fundamentals of Real Estate: Finance **3 0 0 3**

Prerequisites: RLS 101

Corequisites: RLS 102

This course consists of advanced-level instruction on the major aspects of financing real estate transactions, including sources of mortgage funds, the secondary mortgage market, financing instruments, types of mortgage loans, underwriting mortgage loans, consumer legislation affecting real estate financing, real property valuation, closing real estate sales transactions, and finance mathematics.

RLS 104 Fundamentals of Real Estate: Broker **3 0 0 3**

Prerequisites: RLS 101

Corequisites:

Consists of advanced-level instruction with emphasis on real estate brokerage.

SOCIOLOGY

SOC 100 Job Search and Career Planning **3 0 0 3**

Prerequisites:

Corequisites:

Explores career areas indicating required academic preparation and related job information. Includes interpretation and analysis of self-assessment, values clarification, skills identification and transferability, principles of decision-making and application. Research career fields requiring use of career information center and interviews with persons in career fields which interest the student.

SOC 101 Introduction to Sociology **5 0 0 5**

Prerequisites:

Corequisites:

Presents the scientific study of human behavior in relation with others, the general principles affecting the organization of such relationships, and the effects of social life on human personality and behavior. Emphasis is placed on the principles of sociology

Clinical/Credit			
Class	Lab	Shop	Hours

relating to societies in general and particularly American society, cultures, social institutions, groups, and organizations, the class system, social change, and social processes.

SOC 102 Principles of Sociology

3 0 0 3

Prerequisites:

Corequisites:

Study of the principles of sociology; attempts to provide an understanding of culture, collective behavior, community life, social institutions, and social change. Presents the scientific study of human behavior in relation with others, the general principles affecting the organization of such relationships, and the effects of social life on human personality and behavior.

SOC 103 Social Problems

3 0 0 3

Prerequisites:

Corequisites:

A study of the social problems prevalent in contemporary society with emphasis on the nature of, origins of, and solutions to these problems.

SOC 150 Sociology I

5 0 0 5

Prerequisites: Specified score on reading placement test or ENG 094

Corequisites:

Nature, concepts, and principles of sociology. Presents the scientific study of human behavior in relation to others, the general principles affecting the organization of such relationships, and the effects of social life on human personality and behavior. Special attention paid to modern industrial societies in general and American society in particular. Includes society, culture, socialization, groups, institutions and organizations, the class system, social change, and social processes.

SOC 160 Courtship and Marriage

5 0 0 5

Prerequisites:

Corequisites:

A course which introduces students to critical thinking and empirical knowledge relative to affectional involvement, the family, and the roles and relationships associated with each.

SOC 170 Modern Social Problems

5 0 0 5

Prerequisites: SOC 150 or permission of instructor

Corequisites:

An in-depth study of current social problems in American society. Emphasis to be placed not only on the nature, extent, causes, and consequences of these problems but also the proposed solutions or means of limiting these problems.

SOC 221 Family

3 0 0 3

Prerequisites:

Corequisites:

Explore the interaction that takes place within and between the child, family, and society as they contribute to socialization.

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SONOGRAPHY

SON 201 Introduction to Ultrasound

6 0 0 6

Prerequisites:

Corequisites:

Introduction to principles of ultrasound instrumentation, modes of operation, and scanning techniques.

					Clinical/Credit
		Class	Lab	Shop	Hours
	SON 202 Ultrasound Physics			5	0
	Prerequisites: SON 201			0	5
	Corequisites:				
	Acoustic physics including interactions between ultrasound and tissue, and continuation of principles and instrumentations. Current knowledge of biological effects. Laboratory exercises.				
	SON 211 Clinical Education			2	0
	Prerequisites:			21	9
	Corequisites:				
	Active participation in imaging, processing, and technically evaluating sonographic examinations. Regularly scheduled critique sessions.				
	SON 212 Clinical Education			2	0
	Prerequisites: SON 211			21	9
	Corequisites:				
	Active participation in imaging, processing, and technically evaluating sonographic examinations. Regularly scheduled critique sessions.				
	SON 213 Clinical Education			2	0
	Prerequisites: SON 212			21	9
	Corequisites:				
	Active participation in imaging, processing, and technically evaluating sonographic examinations. Regularly scheduled critique sessions. Opportunity for emergency sonography.				
	SON 214 Clinical Education			4	2
	Prerequisites: SON 213			21	12
	Corequisites:				
	Active participation in imaging, processing, and technically evaluating sonographic examinations. Regularly scheduled critique sessions. Opportunity for emergency sonography.				
282	SON 221 Instrumentation & Principles of OB-GYN Sonography			6	0
	Prerequisites:			0	6
	Corequisites:				
	Review of obstetrical/gynecological anatomy and physiology with emphasis on sonographic appearance in cross-section and related pathology. Concentration on integration of patient history and related laboratory test, etc., to sonographic findings.				
	SON 222 Instrumentation Principles of Abdominal Sonography			6	0
	Prerequisites:			0	6
	Corequisites:				
	Review of abdominal anatomy and physiology with emphasis on sonographic appearance in cross-section and related pathology. Concentration on integration of patient history and related laboratory tests, etc., to sonographic findings.				
	SON 231 Instrumentation & Principles for Echocardiography			6	0
	Prerequisites:			0	6
	Corequisites:				
	Review of cardiographic anatomy and physiology with emphasis on sonographic appearance in cross-section and related pathology.				

SPEECH

SPH 150 Voice and Diction

3 0 0 3

Prerequisites:

Corequisites:

Improvement of articulation and pronunciation through drills, readings, and the delivery of simple speeches.

SPH 160 Public Speaking

3 0 0 3

Prerequisites:

Corequisites:

Composition, preparation, and presentation of Speeches for all occasions.

SOCIAL SCIENCE

SSC 101 Introduction to Social Sciences

3 0 0 3

Prerequisites:

Corequisites:

Integrated course in the social sciences, drawing from the fields of sociology, psychology, economics, and political science, introducing the student to the methods of social science and to the basic concepts used by social scientists to explain the functioning of the human world.

WELDING

WLD 120 Oxyacetylene Welding

2 0 3 3

Prerequisites:

Corequisites:

Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, and assembly of units. Welding procedures such as practice in puddling and carrying the puddle, running flat beads; butt welding in the flat, vertical, and overhead position; brazing; and hard and soft soldering. Safety procedures are stressed throughout the program of instruction in the use of tools and equipment. Students perform mechanical testing and inspection to determine quality of the welds.

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WLD 121 Arc Welding

2 0 6 4

Prerequisites:

Corequisites:

Operation of AC transformers and DC motor generator arc welding units. Studies made of welding heats, polarities, and electrodes for use in joining various metal alloys by the art welding process. After students are capable of running beads, they make butt and fillet welds in all positions, and test them in order to detect weaknesses in welding. Safety procedures are emphasized through the course in the use of tools and equipment.

WLD 122 Commercial and Industrial Practice

2 0 3 3

Prerequisites: WLD 120, 121

Corequisites:

Designed to build skills through practice in simulated and actual industrial processes and techniques. Sketching and layout on paper of the size and shape description, listing the steps necessary to build the product, estimating time and material, and then actually

following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and nondestructive tests and inspection.

WLD 1102 Basic Gas Welding

0 0 3 1

Prerequisites:
Corequisites:

Welding demonstrations by the instructor and practice by students in the welding shop. Safe and correct methods of assembling and operating the welding equipment. Practice will be given for surface welding, bronze welding, silver soldering, and flame cutting methods applicable to mechanical repair work.

WLD 1103 Basic Arc Welding

0 0 3 1

Prerequisites:
Corequisites:

Welding demonstrations by the instructor and practice by students in the use of the arc welding process to fabricate steel. Welded joints are discussed and welded in various positions. Care and maintenance of the arc welder are applied in this course.

WLD 1104 Beginning Welding I

2 0 3 3

Prerequisites:
Corequisites:

Introduction to the history of oxyacetylene and arc welding, the principles of welding and cutting, nomenclature of the equipment and assembly of unit. The operations of various AC transformers, AC and DC rectifiers, and DC motor generator arc welding units are introduced. Basic welding procedures are begun. The WLD 1104, 1105, and 1106 series is equivalent to the WLD 1141.

WLD 1105 Beginning Welding II

1 0 6 3

Prerequisites: WLD 1104

Corequisites:

Continues the nomenclature and safe use of welding equipment and supplies. Welding procedures such as practice of puddling and carrying the puddle, running flatheads, butt welding in the flat, vertical and overhead positions. WLD 1104, 1105 and 1106 series is equivalent to WLD 1141.

WLD 1106 Beginning Welding III

2 0 6 4

Prerequisites: WLD 1105

Corequisites:

Continues all the topics introduced in WLD 1104 and WLD 1105. Straight line cutting skills are developed. Safety is stressed. WLD 1104, 1105 and 1106 series is equivalent to WLD 1141.

WLD 1107 Intermediate Welding I

3 0 3 4

Prerequisites:
Corequisites:

A review of basic oxyacetylene cutting and welding, preparation of metals, types of joints, welding procedures and testing welds and the operation of AC transformer and DC motor generator arc welding machines. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. WLD 1107, 1108, and 1109 series is equivalent to WLD 1142.

				Clinical/Credit
	Class	Lab	Shop	Hours
WLD 1108 Intermediate Welding II	1	0	6	3

Prerequisites: WLD 1104, 1105, 1106, 1107

Corequisites:

Continues the topics introduced in WLD 1107. Demonstrated competence in running beads permits student to do butt and fillet welds in all positions for testing in order that the student may detect weaknesses in welding. Safety procedures are stressed. WLD 1107, 1108, and 1109 series is equivalent to WLD 1142.

WLD 1109 Intermediate Welding III	1	0	6	3
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Prerequisites:

Corequisites:

Continues topics of WLD 1107 and WLD 1108. Closely supervised practice enables students to acquire competence for progressing to next course. The WLD 1107, 1108, and 1109 series is equivalent to WLD 1142.

WLD 1110 Commercial and Industrial Practice I	1	0	6	3
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Prerequisites: WLD 1104, 1105, 1106, 1107, 1108, 1109 or equivalents.

Corequisites:

Designed to build skills through practice in simulated and actual industrial processes and techniques. Sketching and layout on paper of the size and shape description, listing the steps necessary to build the product and estimating time and material and then following these directions to build the product. WLD 1110 and 1111 series is equivalent to WLD 1122.

WLD 1111 Commercial and Industrial Practice II	2	0	3	3
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Prerequisites: WLD 1104, 1105, 1106, 1107, 1108, 1109, 1110 or equivalents.

Corequisites:

Continues processes begun in WLD 1110. Emphasis placed on maintenance, repairing worn or broken parts by special welding applications, and field welding and nondestructive tests and inspection. Safety is stressed. WLD 1110 and 1111 series is equivalent to WLD 1122.

WLD 1112 Mechanical Testing and Inspection	1	0	3	2
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Prerequisites: WLD 1141, 1142 or WLD 1120, 1121

Corequisites:

Standard methods for mechanical testing of welds. Students are introduced to the various types of tests and testing procedures and perform the details of the test which give adequate information as to the quality of the weld. Types of tests covered are destructive and nondestructive.

WLD 1113 Pipe Welding I	1	0	6	3
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Prerequisites: WLD 1104, 1105, 1106, 1107, 1108, 1109

Corequisites:

Designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position using shielded metal arc welding processes according to section VIII and IX of the A.S.M.E. code. Safety is stressed. The WLD 1113 and 1114 series is equivalent to WLD 1124.

				Clinical/Credit
	Class	Lab	Shop	Hours
WLD 1114 Pipe Welding II	2	0	6	4
Prerequisites: WLD 1104, 1105, 1106, 1107, 1108, 1109				
Corequisites: Continues all the processes introduced in WLD 1113. WLD 1113 and 1114 series is equivalent to WLD 1124.				
WLD 1120 Oxyacetylene Welding and Cutting	3	0	12	7
Prerequisites:				
Corequisites:				
Introduction to the history of oxyacetylene welding, the principles of welding and cutting, nomenclature of the equipment, and assembly of units. Welding procedures such as practice of puddling and carrying the puddle, running flat beads; butt welding in the flat, vertical, and overhead position; brazing; and hard and soft soldering. Safety procedures are stressed throughout the program of instruction in the use of tools and equipment. Students perform mechanical testing and inspection to determine quality of the welds.				
WLD 1121 Arc Welding	3	0	12	7
Prerequisites:				
Corequisites:				
Operation of AC transformers and DC motor generator arc welding units. Studies made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After students are capable of running beads, they make butt and fillet welds in all positions, and test them in order to detect weaknesses in welding. Safety procedures are emphasized through the course in the use of tools and equipment.				
WLD 1122 Commercial and Industrial Practices	3	0	9	6
Prerequisites: WLD 1141, 1142 or WLD 1120, 1121				
Corequisites:				
Designed to build skills through practices in simulated industrial processes and techniques; sketching and laying out on paper the size, shape, and description, listing the steps necessary to build the product; and then actually following these directions to build the product. Emphasis is placed on maintenance, repairing worn or broken parts by special welding applications, field welding, and nondestructive tests and inspection.				
WLD 1123 Inert Gas Welding	1	0	3	2
Prerequisites: WLD 1141, 1142 or WLD 1120, 1121				
Corequisites:				
Introduction to and practical operations in inert-gas-shield arc welding. Study made of equipment, operation, safety, and practice in the various positions. Thorough study of topics such as principles of operation, shielding gases, filler rods, process variations and applications, and manual and automatic welding.				
WLD 1124 Pipe Welding	3	0	12	7
Prerequisites: WLD 1121 or WLD 1142				
Corequisites:				
Designed to provide practice in the welding of pressure piping in the horizontal, vertical, and horizontal fixed position using shielded metal arc welding processes according to Sections VIII and IX of the A.S.M.E. code.				
WLD 1125 Certification Practices	3	0	6	5
Prerequisites: WLD 1120, 1121 or WLD 1123, 1124, 1141, 1142				
Corequisites:				
Practice in welding the various materials to meet certification standards. Students use various tests including the guided bend and the tensile strength tests to check the quality of work. Emphasis placed on attaining skill in producing quality welds.				

Class	Lab	Shop	Clinical/Credit Hours
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WLD 1129 Basic Gas and Electric Welding **2 0 6 4**

Prerequisites:

Corequisites:

Various processes used for joining materials by welding discussed. Lecture, demonstrations, and practice cover the oxyacetylene and arc welding processes, filler metals used, gases, currents, and weldability of metals. Instruction is given in the set-up and safe operation of oxyacetylene and arc welding apparatus. Students prepare joints both by hand and by machine cutting with the oxyacetylene torch.

WLD 1138 Certification Practices I **2 0 3 3**

Prerequisites: WLD 1111, 1112, 1113, 1114, 1123

Corequisites:

Course involves practices in welding the various materials to meet certification standards. Student uses various tests including the guided bend and the tensile strength tests to check the quality of his work. Emphasis is placed on attaining skills in producing quality welds. WLD 1138, 1139 series is equivalent to WLD 1125.

WLD 1139 Certification Practices II **1 0 3 2**

Prerequisites: WLD 1111, 1112, 1113, 1114, 1123, 1138

Corequisites:

Continues the practices introduced in WLD 1138. Emphasis is placed on attaining skills in producing quality welds. WLD 1138 and 1139 are equivalent to WLD 1125.

WLD 1141 Beginning Welding **5 0 15 10**

Prerequisites:

Corequisites:

Introduction to the history of oxyacetylene and arc welding, the principles of welding and cutting, nomenclature of the equipment, and assembly of unit. Operation of various AC transformers, AC and DC rectifiers, and DC motor generator arc welding units. Welding procedures such as practice of puddling and carrying the puddle; running flat beads; butt welding in the flat, vertical and overhead positions; and the cutting of straight lines with the torch. Safety procedures are stressed throughout the program of instruction.

WLD 1142 Intermediate Welding **5 0 15 10**

Prerequisites:

Corequisites:

Review of basic oxyacetylene cutting and welding; preparation of metals, types of joints, welding procedures, and testing of welds. Operation of AC transformers and DC motor generator arc welding machines. Studies are made of welding heats, polarities, and electrodes for use in joining various metal alloys by the arc welding process. After students are capable of running beads, they make butt and fillet welds in all positions and test them to detect weaknesses in welding. Safety procedures are emphasized throughout the course.

Notes

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